BMW Motorrad

The Ultimate Riding Machine

Rider's Manual (US Model)

K 1600 GT

Motorcycle/Dealer Data

Motorcycle data

Model

Vehicle identification number

Color number

Initial registration

License plate

Dealer Data

Contact in Service

Ms./Mr

Phone number

Dealer's address/phone number (company stamp)

Welcome to BMW

We congratulate you on your choice of a motorcycle from BMW and welcome you to the community of BMW riders.
Familiarize yourself with your new motorcycle so that you can ride it safely and confidently in all highway traffic situations.
Please read this Rider's Manual carefully before starting to use your new BMW motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all your BMW's technical features.
In addition, it contains information on maintenance and care to help you maintain your vehicle's reliability and safety, as well as its value.
If you have any questions concerning your motorcycle, your authorized BMW Motorrad retailer is always happy to provide advice and assistance.

We wish you many miles of safe and enjoyable riding

BMW Motorrad.

01 41 8 550 237

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General instructions

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Overview

Chapter 2 of this Rider's Manual will provide you with an initial overview of your motorcycle. All maintenance and repair work carried out on your motorcycle will be documented in Chapter 11. Proof of the maintenance work performed is a prerequisite for generous treatment of claims. When the time comes to sell your BMW, please remember to hand over this Rider's Manual; it is an important part of the motorcycle.

Abbreviations and symbols

Indicates warnings that you must comply with for reasons of your safety and the safety of others, and to protect your product against damage.

Special information on operating and inspecting your motorcycle as well as maintenance and adjustment procedures.

◀ Indicates the end of an item of information.

• Instruction.

» Result of an activity.

Reference to a page with more detailed information.

◁ Indicates the end of accessory or equipment-dependent information.

Tightening torque.

Technical data.

OE Optional equipment BMW Motorrad optional extras are already completely installed during motorcycle production.

OA Optional accessory BMW optional accessories can be purchased and installed at your authorized BMW Motorrad retailer.

EWS Electronic immobilizer.

DWA Anti-theft alarm.

ABS Anti-Lock Brake System.

DTC Dynamic Traction Control.

ESA Electronic suspension adjustment.

TPC/ RDC Tire Pressure Control (TPC).

Equipment

When you ordered your BMW motorcycle, you chose various items of custom equipment. This Rider's Manual describes optional equipment (OE) offered by BMW and selected optional accessories (OA). This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences.
If your BMW is equipped with options or accessories not described in this Rider's Manual, then this equipment is described in separate operating instructions.

Technical data

All dimensions, weights and outputs in the Rider's Manual refer to the Deutsches Institut für Normung e. V. (DIN) and comply with its tolerance regulations. Versions for individual countries may differ.

Notice concerning current status

The high safety and quality standards of BMW motorcycles are maintained by consistent, ongoing development efforts embracing their design, equipment and accessories. For this reason, aspects of your motorcycle may vary from the descriptions in this Operating instructions. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized based on the data, illustrations or descriptions in this manual.

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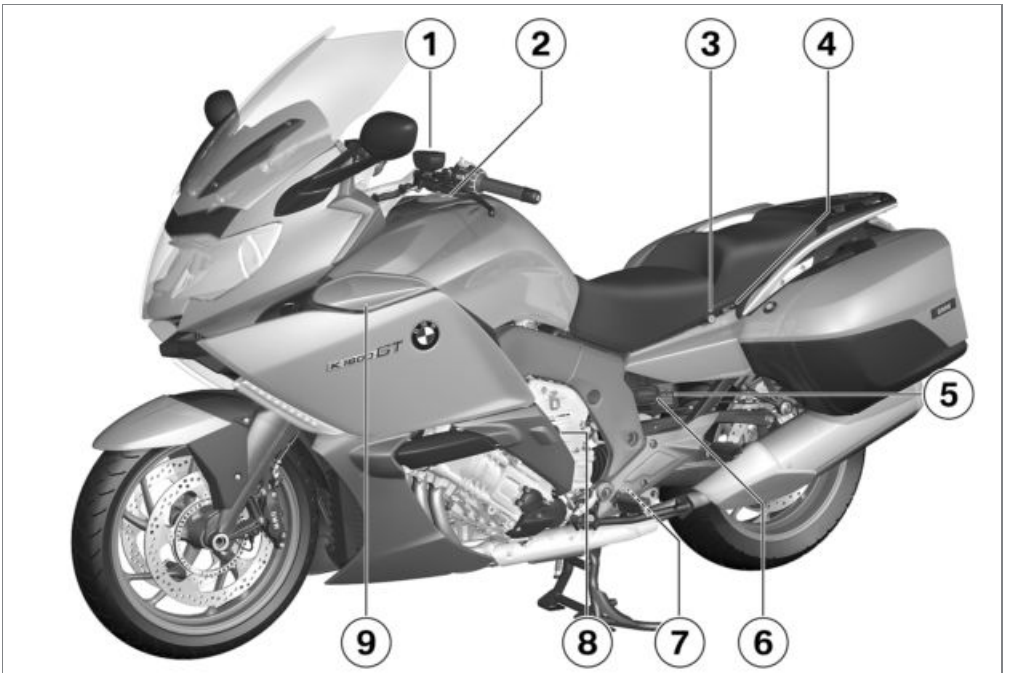
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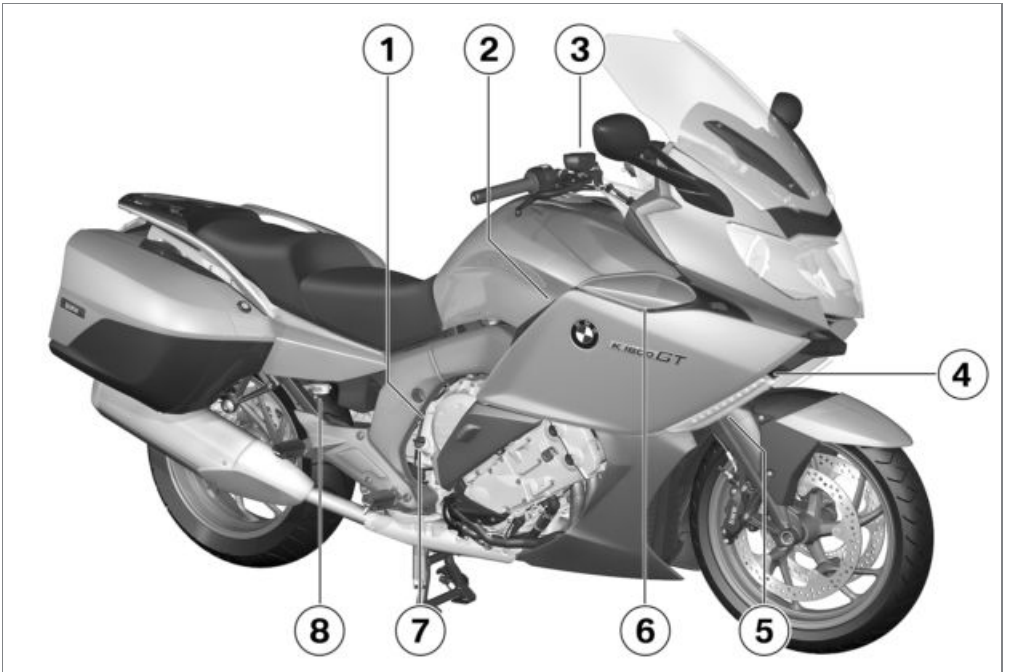
General view, left side

1 Clutch fluid reservoir (➠ 119)
2 Fuel filler opening (➠ 85)
3 Seat lock (➠ 58)
4 Rear seat heating control (on rear seat) (➠ 55)
5 Payload table
Tire inflation pressure table
6 Adjusting spring preload (➠ 65)
7 Damping adjustment (➠ 65)
8 Storage compartment (➠ 63)
9 Wind deflection wing (➠ 60)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K1600GT

General view, right side

1 Vehicle Identification Number (above engine oil filler neck)
2 Onboard power socket (➠ 100)
3 Brake-fluid reservoir, front (➠ 116)
4 Coolant level indicator (behind side panel) (➠ 118)
5 Type plate (on front suspension)
6 Wind deflection wing (➠ 60)
7 Engine oil fill location and oil dipstick (➠ 112)
8 Brake-fluid reservoir, rear (➠ 117)

Multifunction switch, left

1 Headlight high beam and flasher (➠ 50)

2 – with additional LED headlight OE
– with LED auxiliary headlight OA
Operating auxiliary headlights (➠ 51)

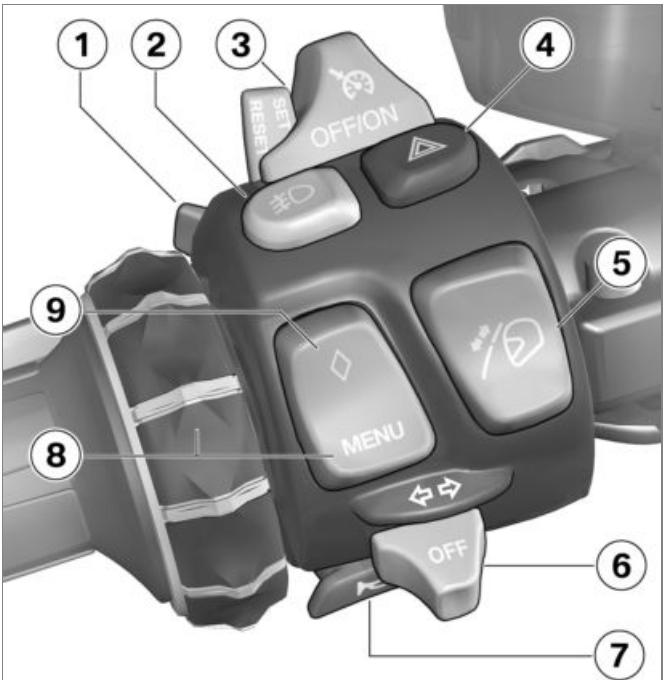
3 Cruise control (➠ 61)

4 Hazard warning flashers (➠ 53)

5 Windshield (➠ 59)

6 Turn indicators (➠ 52)

7 Horn

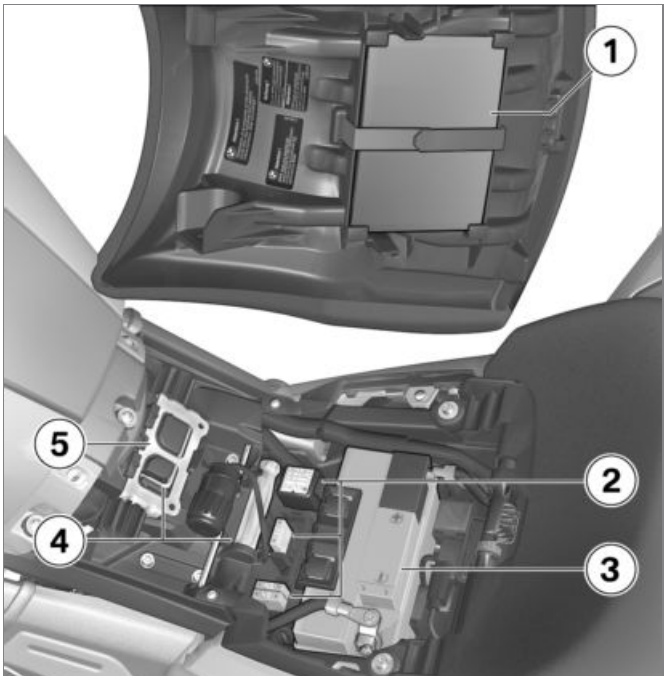


8 Multi-Controller and MENU button
Operating the multifunction display (➠ 44)
– with Dynamic Traction Control (DTC) OE
Using DTC (➠ 56)
– with Electronic Suspension Adjustment (ESA) OE
ESA control (➠ 66)
– with US audio system with navigation preparation OE
Operation of the audio system (see the appropriate instructions for use)

9 Selecting favorite menu (➠ 47).

Multifunction switch, right

1 – with central locking[OE] Operation of the central locking system (➠ 67)
2 Selection of the ride mode (➠ 57)
3 Emergency ON/OFF switch (➠ 53)
4 Starting the engine (➠ 80)

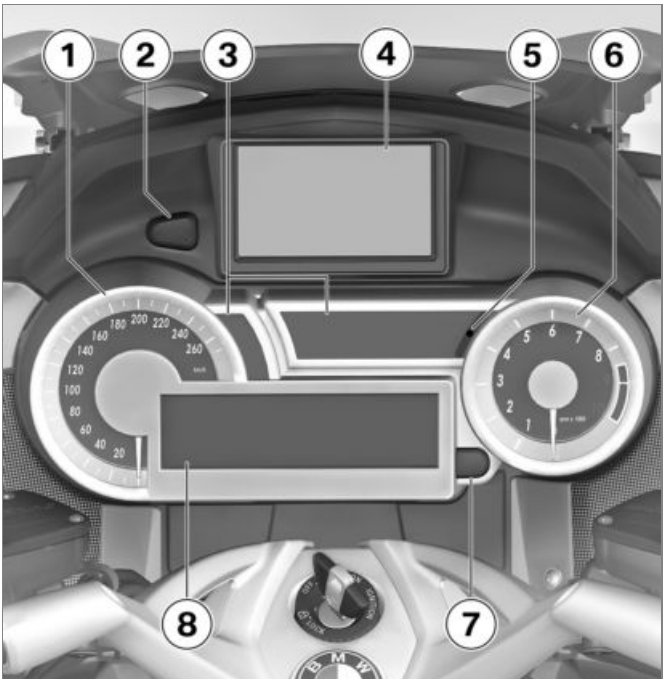


Underneath seat

1 Rider's Manual (US Model)
2 Fuses (➠ 135)
3 Battery (➠ 132)
4 Standard tool kit (➠ 112)
5 Seat-height adjustment (➠ 59)

Instrument cluster

1 Speedometer
2 - with preparation for navigation device (OE)
Release for navigation slot
3 Warning and indicator lamps (➠ 25)
4 – with preparation for navigation device OE
– with navigation system OA
Navigation device (➠ 101)
5 Photocell (for brightness adjustment of instrument lighting)
6 Tachometer
7 Control for tripmeters (➠ 50)
8 Multifunction display (➠ 20)



▷ The brightness of the warning lights and telltale lights, the display and the instrument needle and gauge lighting is adapted automatically to suit ambient brightness.◀

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Multifunction display

1 Riding mode (➠ 57)
2 Coolant temperature
3 Area for warnings (➠ 26)
4 Menu area (➠ 44)
– with US audio system with navigation preparation OE
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5 Onboard computer display area (➠ 48)
– with Tire Pressure Control (TPC/RDC) OE
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6 Status indicators for seat heating (➠ 54)
Status indicators for handlebar grip heating (➠ 54)
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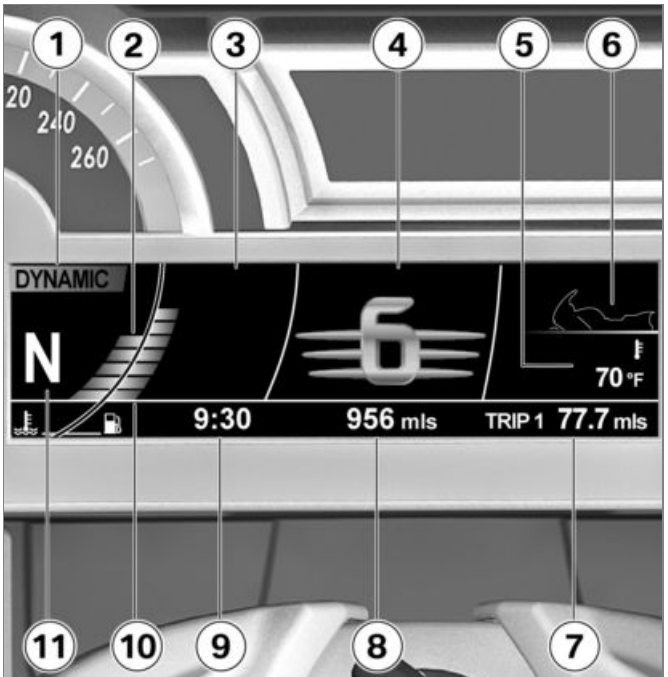
ESA settings
7 Trip distance (➠ 50)
8 Total distance covered
9 Clock (➠ 47)



10 Fuel level
11 Gear indicator, "N" is shown for Neutral

Meaning of symbols

Meanings of the symbols at position **1**:

Average consumption 1 and 2 since last reset (➠ 49)

Range with fuel now on board (➠ 22)

Average speed since last reset (➠ 49)

Ambient temperature (➠ 22)

Tire inflation pressures (➠ 23)

Stopwatch (➠ 49)

Travel times (➠ 49)

Date (display mode depends on the time format selected) (➠ 47)

Oil level (➠ 23)

2 Rear-seat heating ON
3 Heated handlebar grips switched on
4 Front-seat heating ON

– with Electronic Suspension Adjustment (ESA) OE

5 Damping
6 Vehicle load

Range

The range indicates the travel distance available with the remaining fuel. The average consumption employed to calculate the remaining travel range does not appear in the display and may vary from the indicated average consumption.
You must put at least five liters of fuel into the fuel tank for the new level to be registered correctly.
If the sensor cannot register the new level the range display cannot be updated.
If the motorcycle is standing on its side stand, the motorcycle's inclined position will prevent the fuel level from being registered accurately. For this reason travel range is only calculated with the side stand retracted.

The determined range is an approximate reading. BMW Motorrad therefore recommends that you do not try to use the full range before refueling.◀

Ambient temperature

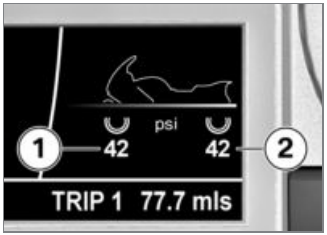
Engine heat can lead to spurious readings of ambient temperature when the motorcycle is stationary. When the effects of engine heat on the monitored temperature become excessive the display responds

by temporarily reverting to −− as the display reading.

If the ambient temperature drops below 37 °F (3 °C), this warning of possible icing-up appears. The display automatically switches from any other mode to the temperature reading when the temperature drops below this threshold for the first time.

Tire inflation pressures

– with Tire Pressure Control (TPC/RDC)OE



The displayed tire inflation pressures refer to a tire temperature of 68 °F (20 °C). The figure on the left side **1** indicates the front tire's inflation pressure, while the figure on the right **2** shows the inflation pressure in the rear tire. Immediately after switching on the ignition, "−− −−" is displayed, as the transfer of the inflation pressure values does not begin until a speed of 19 mph (30 km/h) is exceeded for the first time.

If the pressure in a tire drops to a critical level the corresponding status indicator shows red.

The tire warning symbol also appears on the display.

The general warning lamp flashes red.

Additional information on the BMW Motorrad Tire Pressure Monitor is provided starting on page (➠ 95).

Oil level indicator

The oil-level indicator gives you an indication of the engine oil level.

The conditions for the oil level indicator are as follows:

– Engine at operating temperature.
– Engine idling for at least ten seconds.
– Side stand retracted.
– Motorcycle is vertical.

The readings mean:

OK: Oil level correct.

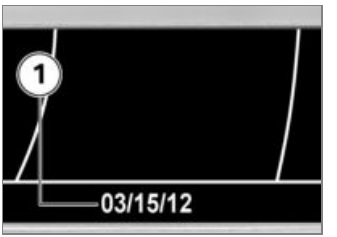
CHECK!: Check oil level during next refueling stop.

– – –: No measurement possible (above-mentioned conditions not met).

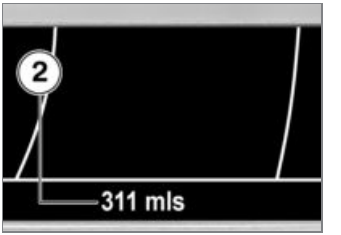
Service display

If a service is due, for a brief period after the preride check the service symbol appears on the display and the service-due date shows instead of the odometer reading.

If the service is overdue the General warning light briefly shows yellow and the service symbol lights up continuously.

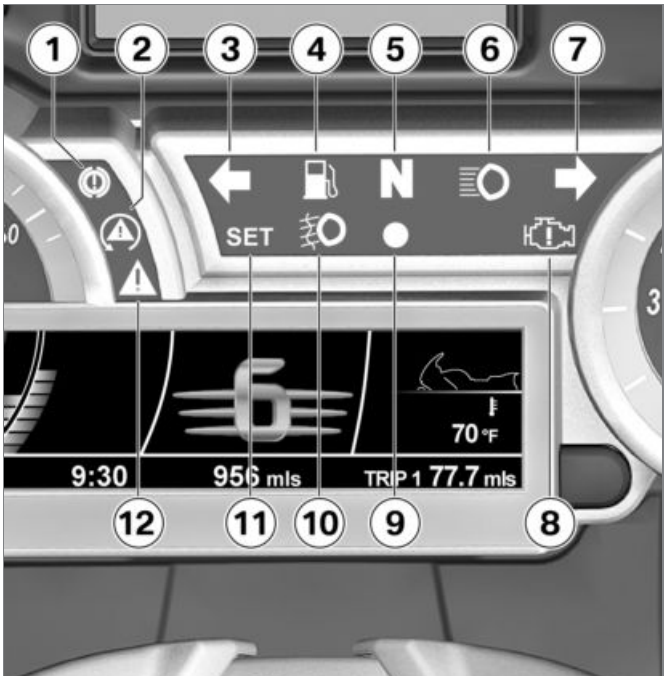


If the countdown to the next service is less than one month, service-due date **1** appears on the display.



If the vehicle covers high annual mileages then shorter service intervals may be required. If the countdown distance to the early service is less than 621 mls (1000 km), countdown distance **2** appears on the display.

If the service display appears more than a month before the service date, the stored date must be adjusted in the instrument cluster. This situation can occur if the battery was disconnected.◀



Warning and indicator lamps

1 ABS warning lamp (➠ 34)

2 – with Dynamic Traction Control (DTC)[OE]
DTC warning lamp (➠ 35)

3 Telltale light of the left turn indicators

4 Warning light for fuel down to reserve (➠ 31)

5 Neutral indicator lamp

6 Headlight high beam indicator lamp

7 Telltale light of the right turn indicators

8 Warning light for engine electronics

9 – with anti-theft alarm[OE]
Anti-theft alarm telltale light (➠ 71)

10 – with additional LED headlight OE
– with LED auxiliary headlight OA
Telltale light for the auxiliary headlights (➠ 51)

11 Indicator light of cruise-control system (➠ 61)

12 Universal warning lamp, appears together with warnings in display panel (➠ 26)

Warning lamps

Display

Warnings are displayed with the corresponding warning lamps.

Warnings for which there is no dedicated warning light are indicated by 'General' warning light **1** showing in combination with a warning symbol such as, for example, **2** appearing in the multifunction display. The universal warning lamp shows red or yellow, depending on the urgency of the warning.

Up to four warning symbols can be displayed at any given time. The universal warning lamp lights up for the most urgent warning. The possible warnings are listed on the following pages.

Overview of warning indicators

Warning and indicator lamps	Warning symbols in the display	Meaning
Lights up yellow	appears on the display	Electronic immobilizer is active (➠ 31)
Lights up	Fuel-level reading turns yellow	Fuel down to reserve (➠ 31)
Lights up red	Temperature reading turns red	Coolant temperature too high (➠ 31)
Lights up		Engine fault (➠ 32)
Flashes		Severe engine fault (➠ 32)
	appears on the display	Engine-oil level too low (➠ 32)
Lights up red	appears on the display	Battery charge current insufficient (➠ 32)
	appears on the display	Onboard system voltage low (➠ 33)

Warning and indicator lamps	Warning symbols in the display	Meaning
Lights up yellow	appears on the display	Onboard system voltage critical (➠ 33)
Lights up yellow	appears on the display	Rear light failure (➠ 33)
Lights up yellow	appears on the display	Front light failure (➠ 34)
Lights up yellow	appears on the display	Light failure (➠ 34)
	appears on the display	Outside temperature warning (➠ 34)
Flashes		ABS self-diagnosis not completed (➠ 34)
Lights up		ABS error (➠ 35)
Flashes rapidly		DTC intervention (➠ 35)

Warning and indicator lamps	Warning symbols in the display	Meaning
Flashes slowly		DTC self-diagnosis not completed (➠ 35)
Lights up		DTC deactivated (➠ 35)
Lights up		DTC error (➠ 36)
Flashes red	+ tire pressure in red	Tire inflation pressure is outside approved range (➠ 36)
	+ "– –" or "– – – –" is indicated	Transmission error (➠ 36)
Lights up yellow	+ "– –" or "– – – –" is indicated	Sensor defective or system fault (➠ 37)
Lights up yellow	appears on the display	Battery of tire-inflation pressure sensor weak (➠ 37)
Lights up red	appears on the display	Light direction of the low-beam headlight not known (➠ 38)

Warning and indicator lamps	Warning symbols in the display	Meaning
Flashes yellow	appears on the display	Beam-throw adjustment of the low-beam headlight restricted (➠ 38)
	appears on the display	Headlight aiming changed (➠ 38)
	appears on the display	Anti-theft alarm battery low charge (➠ 38)
Lights up yellow	appears on the display	Anti-theft alarm battery drained (➠ 39)
	appears on the display	Central locking locked (➠ 39)
briefly shows yellow	appears on the display	Service overdue (➠ 39)

Electronic immobilizer is active

General warning light shows yellow.

Key appears on the display.

Possible cause:

The key being used is not authorized for starting, or communication between the key and engine electronics is disrupted.

- Remove other motorcycle keys from the ignition key ring.
- Use the reserve key.
- Have the defective key replaced, preferably by an authorized BMW Motorrad retailer.

Fuel down to reserve

Reserve-fuel symbol lights up.

Fuel-level reading turns yellow.

Fuel shortage can lead to engine misfires. This can result in unexpected engine deactivation (accident hazard) and damage to the catalytic converter.

Do not drive to the extent that the fuel tank is completely empty.◀

Possible cause:

At the most, the fuel tank still contains the reserve fuel quantity.

Reserve fuel quantity
– Approx. 1.1 gal (Approx. 4 l)

- Refueling procedure (➠ 85).

Coolant temperature too high

General warning light shows red.

The temperature reading turns red.

Driving with an overheated engine can result in engine damage.

Be sure to observe the measures listed below.◀

Possible cause:

The coolant temperature is too high.

- If possible, continue driving in the part-load range to cool down the engine.
- In traffic jams, switch off the engine, but keep the ignition switched on so that the radiator fan continues to operate.
- Should the coolant temperature frequently be too high, have the fault rectified as quickly as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Engine fault

The engine symbol lights up.

Possible cause:

The engine control unit has diagnosed a fault.

The engine is in the emergency operating mode. Unusual engine response is a possibility.
Adapt your style of riding accordingly. Avoid accelerating sharply and overtaking.◀

- If you continue to ride be prepared for unusual engine behavior (low power, poor throttle response, abrupt stalling, etc.)
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Severe engine fault

The engine symbol flashes.

Possible cause:

The engine control unit has diagnosed a severe fault.

An engine fault that can lead to severe consequential damage has been detected.
Adapt your style of riding accordingly. Ride slowly, avoid accelerating and overtaking.
If possible, have the motorcycle picked up.◀

- If you continue to ride be prepared for unusual engine behavior (low power, poor throttle response, abrupt stalling, etc.)
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Engine-oil level too low

The oil can symbol is displayed.

Possible cause:

The electronic oil level sensor has detected a low engine oil level. Check the engine-oil level with the dipstick the next time you stop to refuel:

- Checking engine oil level (➠ 112).

If oil level is too low:

- Topping up engine oil (➠ 114).

Battery charge current insufficient

General warning light shows red.

The battery symbol is displayed.

A discharged battery leads to the failure of various motorcycle systems, e.g. lighting,

engine or ABS. This can result in dangerous driving situations.
Do not continue riding.◀

The battery is not being charged. If you continue driving, the vehicle electronics will discharge the battery.
Possible cause:

Alternator or alternator drive defective.

- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Onboard system voltage low

The split battery symbol appears on the display.
Generator power is only just sufficient to supply all consumers and charge the battery.

Possible cause:

Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine rpm switch off consumers that are not necessary for road safety (e.g. heated body warmer or auxiliary headlights).

Onboard system voltage critical

General warning light shows yellow.

The split battery symbol appears on the display.

Generator power is no longer sufficient to supply all consumers and charge the battery. In order to ensure that the engine can be started and the motorcycle ridden, the onboard electronics switch off the electricity supply to the onboard sockets and the auxiliary headlights. In extreme cases the seat heating and the grip heating might also be shut down.
Possible cause:

Too many consumers switched on. On-board system voltage tends to drop particularly at low engine rpm and when the engine is idling.

- When riding at low engine rpm switch off consumers that are not necessary for road safety (e.g. heated body warmer or auxiliary headlights).

Rear light failure

General warning light shows yellow.

Bulb symbol with arrow pointing to the rear appears on the display.

Possible cause:

Rear light, brake light or rear flashing turn indicator defective. The LED tail light must be replaced.

- Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

Front light failure

General warning light shows yellow.

Bulb symbol with arrow pointing to the front appears on the display.

Possible cause:

Low-beam headlight, high-beam headlight, parking light or front flashing turn indicator defective. The low-beam headlight for one of the LED turn indicators must be replaced.

- Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.
- Replace bulb for high-beam headlight (➠ 128).

Light failure

General warning light shows yellow.

Bulb symbol with two arrows appears on the display.

Possible cause:

A combination of light failures has occurred.

- Please contact a specialized workshop, preferably an authorized BMW Motorrad retailer.

Outside temperature warning

The ice crystal symbol is displayed.

Possible cause:

The outside temperature measured at the vehicle is lower than 37 °F (3 °C).

The outside temperature warning does not mean that there is no risk of black ice forming at measured temperatures above 37 °F (3 °C).
At low outside temperatures, icy conditions must especially be expected on bridges and in shady road areas.◀

- Think well ahead when driving.

ABS self-diagnosis not completed

ABS warning light flashes.

Possible cause:

The self-diagnosis routine was not completed; the ABS function is not available. The motorcycle must reach a speed of at least 3.1 mph (5 km/h) before the

ABS self-diagnosis routine can be completed.

- Ride off slowly. It must be noted that the ABS function is not available until the self-diagnosis has been completed.

ABS error

ABS warning light lights up.

Possible cause:

The ABS control unit has detected an error. The ABS function is not available.

- Continued driving is possible while taking the failed ABS function into account. Observe additional information on situations which can lead to an ABS error (➠ 93).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

DTC intervention

– with Dynamic Traction Control (DTC)[OE]

DTC warning light flashes rapidly.

The DTC has detected instability at the rear wheel and has reduced the torque. The warning light flashes longer than the DTC intervention lasts. This feature continues to furnish the rider with optical feedback confirming that the system has initiated active closed-loop intervention even after the critical situation has passed.

DTC self-diagnosis not completed

– with Dynamic Traction Control (DTC)[OE]

DTC warning light flashes slowly.

Possible cause:

The self-diagnosis was not completed; the DTC function is not available. The engine must be running and the motorcycle must be moved at a speed of at least 3.1 mph (5 km/h) in order for DTC self-diagnosis to complete.

- Ride off slowly. It must be noted that the DTC function is not available until the self-diagnosis has been completed.

DTC deactivated

– with Dynamic Traction Control (DTC)[OE]

DTC warning light lights up.

Possible cause:

The DTC system has been deactivated by the driver.

- Switch on DTC.

DTC error

– with Dynamic Traction Control (DTC)[OE]

DTC warning light lights up.

Possible cause:

The DTC control unit has detected an error. The DTC function is not available.

- It remains possible to continue riding. It must be noted that the DTC function is not available. Observe additional information on situations which can lead to a DTC error (➠ 94).
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Tire inflation pressure is outside approved range

– with Tire Pressure Control (TPC/RDC)[OE]

General warning light flashes red.

+ the critical tire pressure shows red.

Possible cause:

The measured tire inflation pressure is outside the approved tolerance range.

- Check tire for damage and suitability for continued use.

If it is still possible to drive with tire:

A tire inflation pressure outside the permissible tolerance result in poorer handling of the motorcycle.
Adapt your style of riding accordingly.◀

- Correct tire inflation pressure at the next opportunity.

Before adjusting the tire inflation pressure, observe the information on temperature compensation and on inflation pressure adjustment in the chapter "Technology in detail".◀

- Have the tire checked for damage at an authorized service facility, preferably an authorized BMW Motorrad dealer.

If you are unsure about the tire's suitability for continued riding:

- Do not continue riding.
- Contact roadside service.

Transmission error

– with Tire Pressure Control (TPC/RDC)[OE]

+ "––" or "–– ––" is indicated.

Possible cause:

There is a fault in the radio connection to the TPC/RDC sensors. Possible causes are radio systems in the surrounding area, which interfere with the connection between the TPC/RDC control unit and the sensors.

- Watch the TPC/RDC display in another environment. A continuous error is only present if the general warning lamp also lights up. In this case:
- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad dealer.

Sensor defective or system fault

– with Tire Pressure Control (TPC/RDC)[OE]

General warning light shows yellow.

+ "−−" or "−− −−" is indicated.

Possible cause:

Wheels without installed RDC sensors are mounted.

- Retrofit wheel set with RDC sensors.

Possible cause:

One or two TPC/RDC sensors have failed.

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad dealer.

Possible cause:

A system fault has occurred.

- Have fault eliminated at a specialist service facility, preferably an authorized BMW Motorrad dealer.

Battery of tire-inflation pressure sensor weak

– with Tire Pressure Control (TPC/RDC)[OE]

General warning light shows yellow.

The RDC battery symbol appears on the display.

This error message is only displayed for a short time following the pre-ride check.◀

Possible cause:

The battery for the tire inflation pressure sensor is no longer charged to full capacity. Operation of the tire inflation pressure control is only ensured for a limited time.

- Contact an authorized service facility, preferably an authorized BMW Motorrad dealer.

Light direction of the low-beam headlight not known

General warning light shows red.

Headlight with question mark appears on the display.

Illumination of the road ahead is no longer optimum; there is a possibility of dazzling oncoming traffic.
Possible cause:

Light direction and range of the low-beam headlight are unknown, adjustment is no longer possible.

- If it is dark leave the motorcycle where it is or have it picked up, if possible.
- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Beam-throw adjustment of the low-beam headlight restricted

General warning light flashes yellow.

Headlight with zero appears on the display.

Illumination of the road ahead is no longer optimum.
Possible cause:

Only restricted adjustment of light direction and range of the low-beam headlight possible.

- Have the defect rectified by a specialist workshop, preferably an authorized BMW Motorrad dealer.

Headlight aiming changed

– with adaptive headlight OE

appears on the display. Cornering light control for the low-beam headlight is switched off.

Possible cause:

Headlight alignment has been changed from the as-delivered condition.

- Adjusting for traffic driving on right or driving on left (➠ 51).

Anti-theft alarm battery low charge

– with anti-theft alarm OE

The anti-theft alarm battery symbol appears on the display.

This error message is only displayed for a short time following the pre-ride check.◀

Possible cause:

The anti-theft alarm battery no longer has its full capacity. The operation of the anti-theft alarm system is only ensured for a limited time with the vehicle battery disconnected.

- Contact an authorized service facility, preferably an authorized BMW Motorrad dealer.

Anti-theft alarm battery drained

– with anti-theft alarm OE

General warning light shows yellow.

The anti-theft alarm battery symbol appears on the display.

This error message is only displayed for a short time following the pre-ride check.◀

Possible cause:

The anti-theft alarm system battery is completely discharged. Operation of the anti-theft alarm system is no longer ensured when the vehicle's battery is disconnected.

- Contact an authorized service facility, preferably an authorized BMW Motorrad dealer.

Central locking locked

– with central locking OE

The locked symbol appears on the display.
All locks in the central locking system are locked.

Service overdue

appears on the display.

General warning light briefly shows yellow after the pre-ride check.

Possible cause:

A necessary service has not been carried out.

- Have servicing carried out as quickly as possible by a specialist workshop, preferably an authorized BMW Motorrad dealer.

Operation

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Steering and ignition lock

Keys

You are provided with 2 ignition keys. Should you lose your keys, refer to the information regarding the electronic immobilizer (EWS) (➠ 43).

Steering and ignition lock, tank filler cap lock, stowage compartment, seat lock and cases are all operated with the same vehicle key.

– with topcase OA

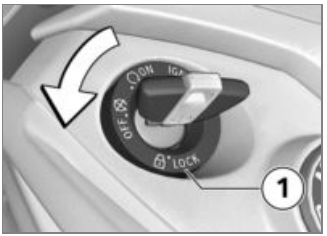
A topcase with a lock for the same vehicle key can be ordered on request. Please contact an authorized workshop for this purpose, preferably an authorized BMW Motorrad retailer.

Lock handlebars

⚠ If the motorcycle is on the side stand, the surface of the ground will determine whether it is better to turn the handlebars to the left or right. However, the motorcycle is more stable on a level surface with the handlebars turned to the left than with the handlebars turned to the right.

On level ground, always turn the handlebars to the left to set the steering lock.◀

- Turn handlebars to full left or right lock position.



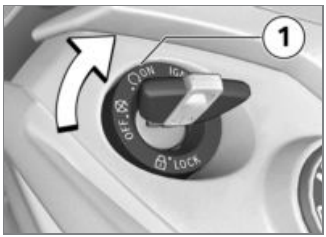
- Turn key to position **1** while moving handlebars slightly.

» Ignition, lights and all electrical circuits switched off.

» Handlebars locked.

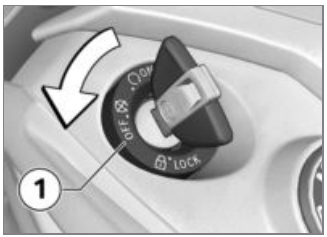
» Key can now be removed.

Switching on ignition



- Turn key to position **1**.
» Parking lamps and all function circuits switched on.
» Engine can be started.
» Pre-Ride Check in progress. (➠ 81)
» ABS self-diagnosis in progress. (➠ 81)
– with Dynamic Traction Control (DTC) OE
» DTC self-diagnosis is performed. (➠ 82)◁

Switching off ignition



- Turn key to position **1**.
» Light switched off.
» Handlebars not locked.
» Key can now be removed.
» The windscreen automatically moves to the bottom limit position.

EWS Electronic immobilizer

The motorcycle's electronic circuitry monitors the data stored in the key through a ring antenna incorporated in the ignition lock. The engine management system does not enable engine starting until the vehicle key has been recognized as "authorized" for your motorcycle.

▷ A further key attached to the same ring as the ignition key used to start the engine could "irritate" the electronics, in which case the enabling signal for starting is not issued. The EWS warning is shown in the multifunction display.
Always store further vehicle keys separately from the ignition key.◀

If you lose a vehicle key, you can have it disabled by your BMW Motorrad partner. When having a key disabled you should also bring all of the motorcycle's remaining keys with you.
The engine can no longer be started using a disabled vehicle key; however, a disabled vehicle key can be enabled again.

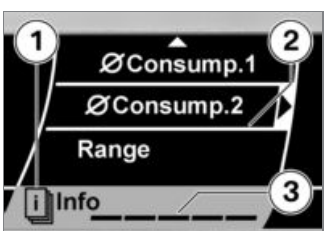
Replacement and spare keys are only available through an authorized BMW Motorrad dealer. The keys are part of an integrated security system, so the retailer is under an obligation to check the legitimacy of all applications for replacement/extra vehicle keys.

Multifunction display

Selecting menu

Press button **2** to step through the sequence of menus, starting with the `Info` menu. Each time you press button **2** you call up the next menu in the sequence; the number of menus depends on the options fitted to the motorcycle.
You also have the option of pressing button **3** for direct access to a favorite menu of your choice.

With the exception of the `Audio` area, the `Settings` menu can only be called with the motorcycle at a standstill.

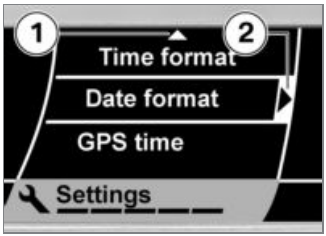


The type of menu shows at position **1**; cursor **2** indicates the current selection. Each line **3** indicates a menu that can be selected. The line representing the menu you are currently viewing is grayed to show you where you are in the sequence of menus.

▷ See the separate Quick Reference Guide for an overview of all menus.◀

Selecting menu item

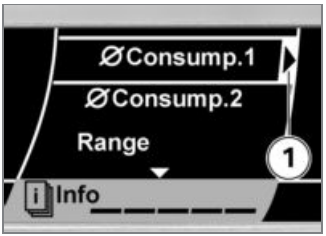
Move the cursor within the menu using the Multi-Controller **1**.



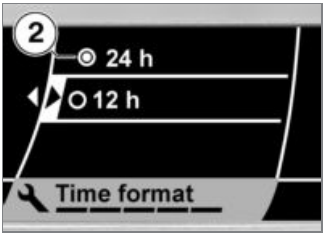
An arrow **1** on the upper or lower edge of the display indicates that by turning the Multi-Controller in the corresponding direction, you can access additional menu items. If the arrow **2** is shown on the cursor, then you can call up a submenu by pressing the Multi-Controller to the right (different meaning for average values and list selection, see (➠ 45)).

Setting parameters

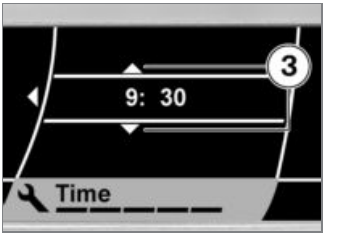
Direct selection:
If you move the cursor to a menu item that requires no other settings, your selection goes active right away.



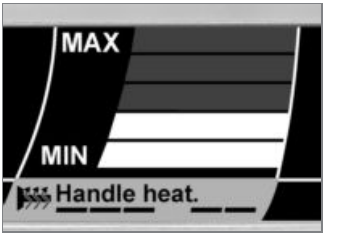
Resetting values:
You can reset average values marked with an arrow **1** by long-pressing the Multi-Controller to the right.



Selecting from a list:
A circle **2** beside each selectable item means that the items are part of a selection list. A circle with a dot indicates the item that is currently selected.
If you want to change the selection, move the cursor to another item in the list and press the Multi-Controller to the right to either activate or deactivate the parameter you selected.

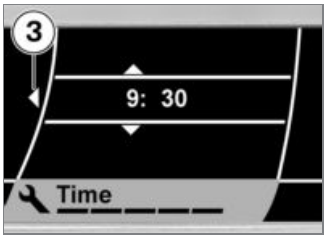


Setting numerical values:
If there are one or more numerical values between the arrows **3**, you can increase the values by turning the Multi-Controller up or reduce the values by turning it down. By pressing the Multi-Controller to the right or left, you can change between the values.

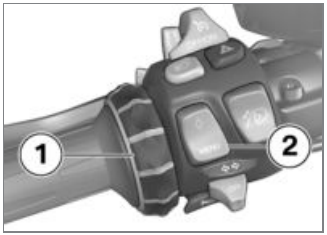


Setting relative values:
A bar indicator enables you to set a value in a range between two limits. Turning the Multi-Controller up increases or turning it down decreases the value to be set.

Exiting menu



Arrow **3** appears when you are in a submenu.



By pressing the Multi-Controller **1** to the left, you jump back to the next-higher menu; by pressing the MENU button **2**, you jump back to the main menu.
To hide the menus, press the Multi-Controller **1** to the left in a main menu.

Selecting favorite menu

- Select the main menu of your choice.

- Hold down button **3**.

The diamond appears to the right of the menu designation.

» The menu you have selected will subsequently be called up whenever you press button **3**.

Adapting mode of presentation

- Switch on ignition.
- Call up the Settings menu and select User.

The settings you can choose are as follows:

- Language: Display language (German, English, Spanish, Italian, French, Dutch, Portuguese)
- Time format - 12 h / 24 h: Clock in 12-hour format (12 h) or in 24-hour format (24 h)
- Time format - Date format: Date in day . month . year format (dd . mm . yy) or in month / day / year format (mm / dd / yy)
- Time format - GPS time: Accept GPS time and GPS date from the built-in navigation system (On), (Off)
- Brightness: Brightness of the display and the instruments
- Start logo: Show start logo after the ignition is switched on (On), (Off)
- Background: Indicator on the display when the radio is switched off: Empty: No indicator, Logo: 6 cylinder logo, Speedo: Digital speed indicator
- Fact. settings: Restore factory defaults (when Reset! appears on the display, press the Multi-Controller to the right and hold it in this position)
- Using the Multi-Controller, make the desired adjustments.

Onboard computer

Selecting display readings

- Call up the Info menu and select the item of information of your choice.

The following items of information can be displayed in panel **3**:

- ØConsump.1: Average consumption 1
- ØConsump.2: Average consumption 2
- Range: Range with fuel remaining in fuel tank
- ØSpeed: Average speed
- Temperature: Ambient temperature
- Tire pressure: Tire pressures
- Stopwatch: Stopwatch
- Travel times: Travel times

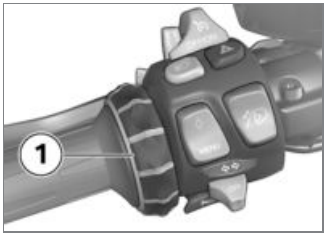
– Date: Current date
– Oil level: Engine-oil level
– Off: No reading

Resetting average data

- Call up the Info menu and select the average value you want to reset.
- Push the Multi-Controller to the right and hold it in this position until the average value is reset.

Operating stopwatch

- Call up the Info menu and select Stopwatch.



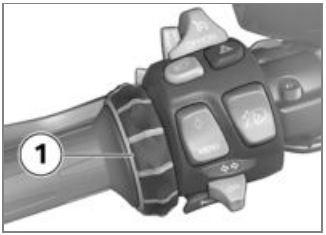
- With the stopwatch stopped, push the Multi-Controller **1** to the right to start the stopwatch.

» The stopwatch continues timing even if you select some other reading or switch off the ignition.

- With the stopwatch running, push Multi-Controller **1** to the right to stop the stopwatch.
- Push Multi-Controller **1** to the right and hold it in this position to reset the stopwatch.

Measuring travel times

- Call up the Info menu and select Travel times.



- Push the Multi-Controller **1** to the right and hold it in this position to reset the travel time.

» Timing continues even if you select some other reading or switch off the ignition.

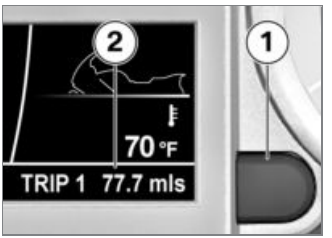
Time during which the motorcycle was on the move since the last reset.

Time during which the motorcycle was at a standstill since the last reset.

Odometer

Select odometer

- Switch on ignition.



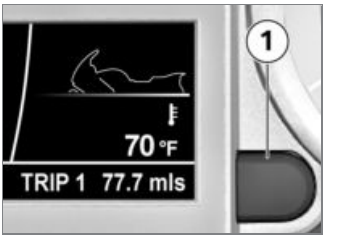
- Press button **1** to select odometer **2** of your choice.

The following counters can be displayed:

– Tripmeter 1 (`Trip 1`)
– Tripmeter 2 (`Trip 2`)
– Automatic trip meter (`Trip A`, resets automatically eight hours after ignition OFF).

Resetting tripmeter

- Switch on ignition.
- Select desired trip odometer.



- Press and hold down button **1** until the odometer reading is reset.

Lights

Parking lights

The parking lights come on automatically when the ignition is switched on.

The parking lights are a strain on the battery. Do not leave the ignition switched on longer than absolutely necessary.◀

Headlight low beam

The headlights automatically come on in their low-beam mode as soon as you start the engine.

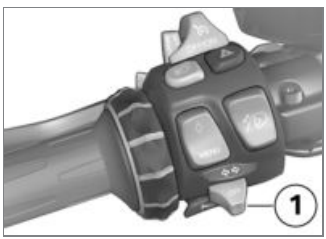
Headlight high beam and flasher

- Press switch **1** toward front to switch on high beams.
- Pull switch **1** rearward to operate headlight flasher.

The high-beam headlight can also be switched on when the engine is not running.◀

Parking light

- Switch off ignition.



- Immediately after switching off the ignition push the button **1** to the left and maintain pressure until the parking lights come on.
- Switch ignition on and then off again to switch off parking lights.

Adjusting for traffic driving on right or driving on left

– with adaptive headlight OE

- Switch on ignition.
- Call up the `Settings` menu and select `Vehicle - Headlight`.

– `R-hand traffic`: for countries in which the traffic drives on the right-hand side of the road.
– `L-hand traffic`: for countries in which the traffic drives on the left-hand side of the road.

- Select the appropriate setting.

appears on the display.

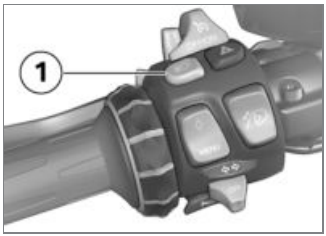
» The cornering light function is not active for as long as the setting is changed.

Headlight range

The xenon headlight has continuous beam throw control that keeps beam throw constant regardless of how the motorcycle is ridden and the load it carries.

Operating additional LED headlight

– with additional LED headlight OE
– with LED auxiliary headlight OA



- Press button **1** to switch on the additional LED headlights.

The telltale light shows.

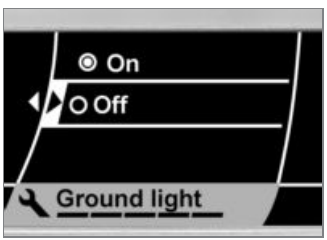
If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the auxiliary headlights might have been temporarily switched off.

- Press button **1** again to switch off the additional LED headlights.

Operating ground lighting

– with ground lighting OA

- Switch on ignition.
- Call up the Settings menu and select Vehicle - Ground light.



– On: Ground lighting comes on for a brief period after the ignition is switched off.
– Off: Ground lighting does not come on after the ignition is switched off.
– with central locking OE

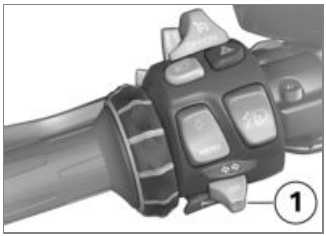
» If the function is switched off as described above, the ground lighting switches on nonetheless when you unlock the central locking system.◁

Turn indicators

Operating turn indicator

- Switch on ignition.

After driving for approx. 10 seconds or after covering a distance of approx. 980 ft (300 m), the turn indicators are automatically switched off.◀



- Press button **1** toward left to switch on left-hand turn indicator.
- Press button **1** toward right to switch on right-hand turn indicator.
- Press button **1** into center position to switch off turn indicators.

Hazard warning flashers

Operating hazard warning flashers

- Switch on ignition.

The hazard warning flashers place a strain on the battery. Do not use the hazard warning flashers for longer than absolutely necessary.◀

If a turn indicator button is pressed with the ignition switched on, the flashing function replaces the emergency flashing function as long as the button is pressed. If the turn indicator button is released, the emergency flasher function becomes active again.◀

- Press button **1** to switch on hazard warning flashers.

» Ignition can be switched off.

To switch off the hazard warning flashers:

- Switch on the ignition and press button **1**.

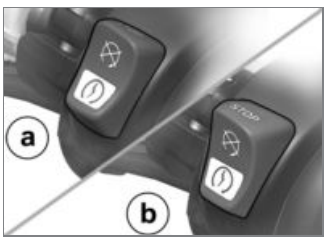
Emergency ON/OFF switch

1 Emergency ON/OFF switch

Operating the emergency ON/OFF switch when riding can cause the rear wheel to lock and thus cause a fall.

Do not operate the emergency ON/OFF switch when riding.◀

The engine can be switched off easily and quickly using the emergency ON/OFF switch.



a Engine switched off
b Operating position

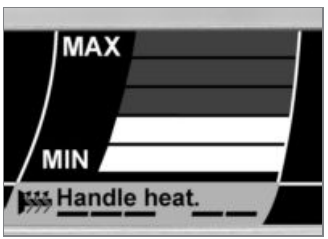
Heated handlebar grips

Operate the heated handlebar grips

• Start engine.

The heated grips option can only be activated when the engine is running.◀

• Call up the `Handle heat.` menu.



The grips have five-stage heating. Stage five is for heating the grips quickly: it is advisable to switch back to a lower stage as soon as the grips are warm.

• Select the heating stage you want.

Symbol **1** appears on the display, indicating that the heated handlebar grips are ON.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the handlebar grip heating might have been temporarily switched off.

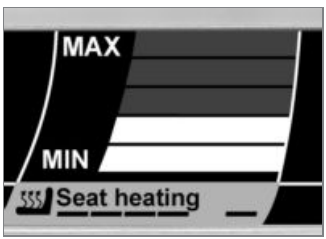
Seat heating

Driver's seat heater

• Start engine.

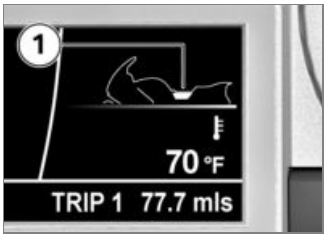
Seat heating can be activated only when the engine is running.◀

- Call up the `Seat heating` menu.



The front seat has five-stage heating. Stage five is for heating the seat quickly: it is advisable to switch back to a lower stage as soon as the seat is warm.

- Select the heating stage you want.



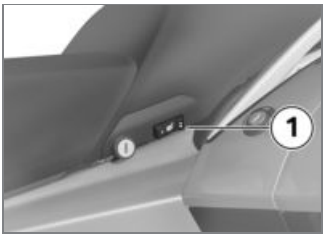
Symbol **1** appears on the display, indicating that the seat heating is ON.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the seat heating might have been temporarily switched off.

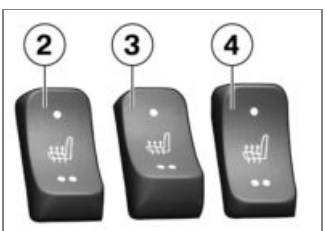
Passenger seat heater

- Start engine.

Seat heating can be activated only when the engine is running.◀



- Select desired heating level with switch **1**.



The passenger seat can be heated at two levels. The second level is used for fast heat-up of the seat; then the switch should

be switched back to the first level.
– **2** Switch in middle position: Heating off.
– **3** Switch in one-dot position: 50 % heating output.
– **4** Switch in two-dot position: 100 % heating output.

Symbol **1** appears on the display, indicating that the rear seat heating is ON.

If this warning symbol appears it tells you that the on-board system voltage is low. If applicable, the seat heating might have been temporarily switched off.

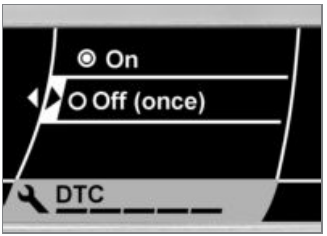
Dynamic Traction Control (DTC)

– with Dynamic Traction Control (DTC)[OE]

Switching DTC off and on

- Switch on ignition.
- Call up the `Settings` menu and select `DTC`.

This menu cannot be called up while the motorcycle is on the move.◀



- Select `Off (once)` to switch DTC off once, in other words until the ignition is next switched on.

The DTC warning light shows to indicate that DTC has been switched off.

- Select `On` to switch on DTC. Alternatively: Switch the ignition off and then on.

DTC warning light goes out; if self-diagnosis has not completed the DTC warning light starts flashing.

Riding mode

Setting driving mode

• Switch on ignition.

• Press button **1**.

Details on the selectable driving modes are provided in the chapter "Technology in Detail".◀

The current setting is shown at position **2**; each time the button is pressed one of the possible riding modes is shown at position **3**.

• Repeatedly press the button until the reading shows the riding mode you want.

» With the motorcycle at a standstill, the mode you select is activated after a brief delay.

» The new driving mode is activated while driving under the following conditions:

– Brake not actuated

– Throttle turned all the way back

– Clutch actuated

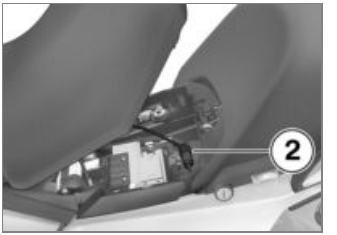
» Once the new riding mode has been activated, the selection display disappears.

» The mode selected in this way is retained with the engine-characteristic and DTC adaptation settings even after the ignition has been switched off.

Driver's seat

Remove rider's seat

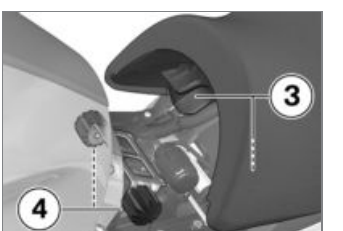
- Use the ignition key to unlock seat lock **1** and lift the rear of the front seat.



- Disconnect plug **2** of the seat heating and remove the front seat.
- Lay the seat on the cover side on a clean surface.

Installing driver's seat

- Connect plug **2** of the seat heating.

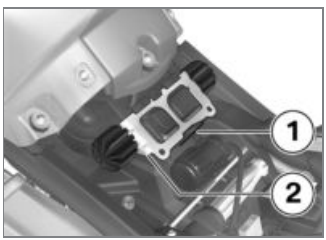


- Position the front seat with mounts **3** in rubber buffers **4** on left and right.

- Lower the rear of the front seat and engage the seat in the latching mechanism.

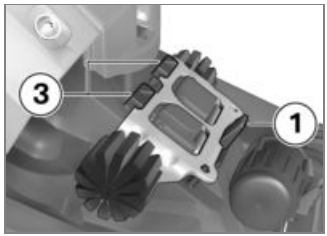
Adjusting front-seat height

- Remove rider's seat (➠ 58).



- Pull latch **1** to the rear and remove adjusting plate **2**.

- Turn the adjusting plate to position **A** for the lower seat height.
- Turn the adjusting plate to position **B** for the higher seat height.



- Insert the adjusting plate in the desired position into mounts **3** and then push it into latch **1**.
- Installing driver's seat (➠ 58).

Windshield

Adjusting windshield

- Switch on ignition.

» When you pull away the windscreen automatically returns to the position it was in before the ignition was switched off.

- Press button **1** at top to raise windshield.
- Press button **1** at bottom to lower windshield.
- Switch off ignition.

» The windscreen automatically moves to the bottom limit position.

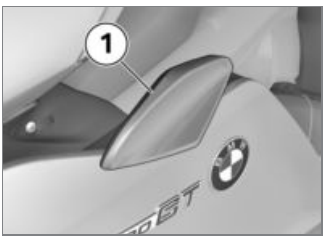
» If the windscreen encounters resistance before it reaches its limit position the pressure-sensitive finger guard system goes active. The windscreen is stopped and raised slightly. After a delay of a few seconds the windscreen again attempts to move to the bottom limit position.

There is no guarantee that the pressure-sensitive finger guard system will function correctly if a windscreen that does not have BMW approval is installed.

- Under these circumstances: Before switching off the ignition always check that there is nothing to obstruct movement of the windscreen.

Wind deflection wing

Adjusting slipstream deflectors



Attempting to adjust the slipstream deflectors while the motorcycle is being ridden can lead to accidents.

Do not attempt to adjust the slipstream deflectors unless the motorcycle is at a standstill.◀

- Turn slipstream deflector **1** in or out to adjust the airflow for the rider. In this process, note the outer limit stop.

Cruise control

Switching on cruise control

- Push switch **1** to right.

» Button **2** is operational.

Setting road speed

- Briefly press button **2** forward.

The cruise control can be set within a speed range from 19 mph (30 km/h) to 136 mph (220 km/h).◀

SET Indicator light for cruise-control system lights up.

» The motorcycle maintains your current cruising speed and the setting is saved.

Acceleration

- Briefly press button **2** forward.

» Speed is increased by 0.6 mph (1 km/h) each time button is pressed.

- Press button **2** forward and hold.

» The motorcycle accelerates steplessly.

» If the button **2** is no longer pressed, the speed achieved is maintained and saved.

Decreasing speed

- Briefly press button **2** backward.
» Speed is decreased by 0.6 mph (1 km/h) each time button is pressed.
- Press button **2** back and hold.
» The motorcycle decelerates steplessly.
» If the button **2** is no longer pressed, the speed achieved is maintained and saved.

Deactivate cruise control

- Actuate brakes, clutch or throttle grip (take back throttle beyond back position) to deactivate cruise-control system.
» Cruise control indicator lamp goes out.

Resuming former cruising speed

- Briefly push button **2** back to return to the speed saved beforehand.

Opening the throttle does not deactivate the cruise-control system. If you release the throttle grip, the motorcycle will decelerate only to the cruising speed saved in memory, even though you might have intended slowing to a lower speed.◀

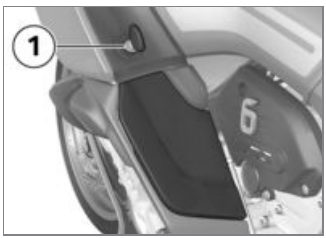
SET Indicator light for cruise-control system lights up.

Switching off cruise control

- Push switch **1** to left.
» The system is deactivated.
» Button **2** is locked.

Storage compartments

Operating storage compartment



- Use the ignition key to open or close lock **1** of the stowage compartment.
- To open the lid, push the unlocked lock barrel down.

– with preparation for US audio system and navigation device OE

- The description applies by analogy to the stowage compartment on the right side.◁

Temperatures inside the stowage compartments can be high, particularly in summer, and it is important to remember that high temperatures might damage objects stowed in the compartments. This applies in particular to electronic devices such as mobile phones and MP3 players.
Refer to the operating instructions of your electronic devices for possible usage restrictions.◀

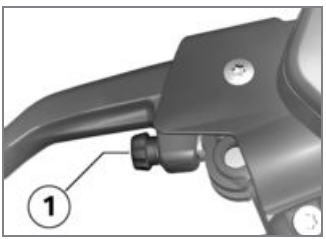
- In summer, do not place heat-sensitive objects in the stowage compartments.

Clutch

Adjusting clutch lever

Changing the position of the clutch-fluid reservoir can allow air to penetrate the clutch system.
Do not turn the handlebar fitting on the handlebar.◀

Adjusting the clutch lever while driving can lead to accidents.
Only adjust the clutch lever when the motorcycle is stationary.◀



- Turn adjusting screw **1** clockwise to increase distance between clutch lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between clutch lever and handlebar grip.

The adjusting screw can be turned more easily if you

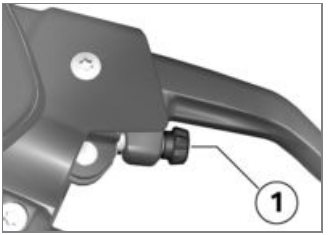
press the clutch lever forward when doing so.◀

Brakes

Adjusting handbrake lever

Changing the position of the brake-fluid reservoir can allow air to penetrate the brake system.
Do not turn the handlebar fitting on the handlebar.◀

Adjusting the handbrake lever while driving can lead to accidents.
Only adjust the handbrake lever when the motorcycle is stationary.◀



- Turn adjusting screw **1** clockwise to increase distance between brake lever and handlebar grip.
- Turn adjusting screw **1** counterclockwise to decrease distance between brake lever and handlebar grip.

The adjusting screw can be turned more easily if you press the handbrake lever forward when doing so.◀

Mirrors

Adjusting mirrors

- Move mirror into desired position by applying light pressure at edge.

Spring preload

Setting

It is essential to set the spring preload to suit the load carried by the motorcycle. Increase spring preload when the vehicle is heavily loaded and reduce spring preload accordingly when the vehicle is lightly loaded.

Adjusting spring preload at rear wheel

- Make sure ground is level and firm and park motorcycle.

Adjusting the spring preload while the motorcycle is being ridden can lead to accidents. Adjust the spring preload only when the motorcycle is stationary.◀

- Pull out adjustment wheel **1** for better accessibility.

Your motorcycle's handling will suffer if you do not match the spring-preload and damping-characteristic settings. Adjust the damping characteristic to suit the spring preload.◀

- To increase spring preload, turn adjustment wheel in direction of HIGH arrow.
- To decrease spring preload, turn adjustment wheel in direction of LOW arrow.

Basic setting of spring preload, rear
– without Electronic Suspension Adjustment (ESA)[OE]
– Knob turned as far as it will go in the direction indicated by the LOW arrow (Full tank of gas, with rider 187 lbs (85 kg))◁

- Push the adjustment wheel back in to its original position.

Damping

Setting

The damping must be adjusted to the road conditions and the spring preload.

– A rough road surface requires softer damping than a smooth road surface.

– An increase in spring preload requires firmer damping, a reduction in spring preload requires softer damping.

Adjust damping on rear wheel

- Make sure ground is level and firm and park motorcycle.

- If you want a harder damping characteristic, use the tool from the onboard toolkit to turn adjusting screw **1** in the direction indicated by the H arrow.
- If you want a softer damping characteristic, use the tool from the onboard toolkit to turn adjusting screw **1** in the direction indicated by the S arrow.

Basic setting of rear wheel rear-wheel damping

– without Electronic Suspension Adjustment (ESA) OE

Basic setting of rear wheel rear-wheel damping

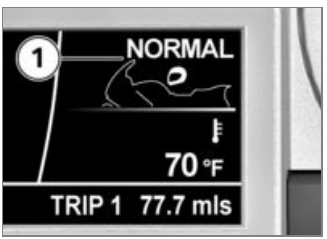
– Turn the adjusting screw as far as it will go in the direction indicated by the H arrow and then turn it back one and a half turns in the direction indicated by the S arrow (Full tank of gas, with rider 187 lbs (85 kg))◁

ESA Electronic Suspension Adjustment

– with Electronic Suspension Adjustment (ESA) OE

Settings

You can use the ESA Electronic Suspension Adjustment feature to adapt your motorcycle to its current load as well as the road surface. This entails selecting the load variant and the damping characteristic.
You have a choice of three load variants with any of three damping characteristics selectable for each one.



The current setting appears in display field **1**.

Additional information on the ESA II Electronic Suspension Adjustment is provided on page (➠ 96).

Adjusting the suspension

- Start engine.

The damping can be adjusted while the motorcycle is being ridden.◀

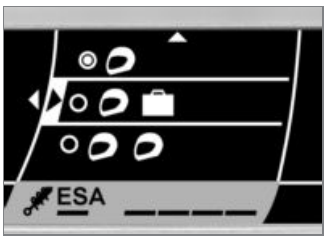
- Call up the ESA menu.

The possible settings for the damping characteristic appear on the display.

– Comfort: comfort mode
– Normal: normal mode
– Sport: sport mode

- Select the damping characteristic you want or move the cursor down to set the vehicle load.

The load cannot be set while the motorcycle is in motion.◀



The possible settings for vehicle load appear on the display.

One-up

One-up with luggage

Two-up (with luggage)

- Select the vehicle load variant you want.

» The suspension adjusts to suit the new setting and the ESA reading changes accordingly. The symbols for vehicle load and damping characteristic are grayed while adjustment is in progress.

Central locking

– with central locking[OE]

Lock

- Switch on the ignition and press button **3**.

- Alternatively: Press button **1** on the remote control.

» The stowage compartment in the left side panel and the cases are locked.

– with preparation for US audio system and navigation device OE

» The stowage compartment in the right side panel is locked.◁

– with topcase OA

» The topcase is locked.◁

» These locks cannot subsequently be unlocked manually.

The locked symbol appears on the display.

– with anti-theft alarm OE

» The functions of the remote control for the anti-theft alarm are described in the corresponding section.◁

Unlocking

- Switch on the ignition and press button **3**.
- Alternatively: Press button **2** on the remote control.

» The stowage compartment in the left side panel and the cases are unlocked.

– with preparation for US audio system and navigation device OE

» The stowage compartment in the right side panel is unlocked.◁

– with topcase OA

» The topcase is unlocked.◁

» Once a lock has been locked manually it subsequently has to be unlocked manually as well.

– with anti-theft alarm OE

» The functions of the remote control for the anti-theft alarm are described in the corresponding section.◁

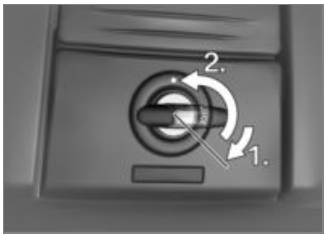
– with ground lighting OA

» If you use the remote control to unlock with the ignition switched off, the ground lighting is switched on for a brief period.◁

Emergency unlocking

If the central locking system refuses to unlock, you can open the cases, topcase and stowage compartments manually. The procedure is as follows:

- Removing case (➠ 105).
- Opening case (➠ 104).



- First turn the key in the top-case lock 45° past the LOCK position, then turn it to the dot position and press in the lock barrel.

» The release lever pops open.

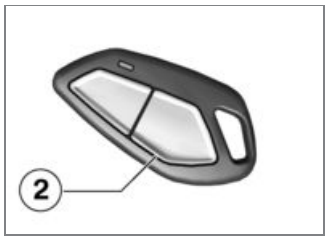
- Turn the key in the stowage-compartment lock 45° out past the vertical position and press in the lock barrel.

» The stowage-compartment lid pops open.

Logon of remote controls

If a remote control has been mislaid and a replacement acquired or if you are going to use an additional remote control, you must invariably log on all the remote controls in the set.

- Enable logon of the remote controls as follows:
- Switch on ignition.



- Press button **2** on the remote control three times.

» One acoustic signal sounds.

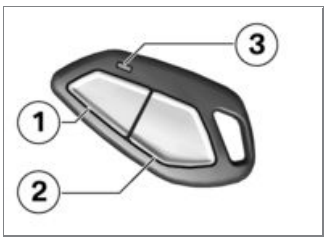
- Within ten seconds, switch off the ignition.
- Press button **2** on the remote control three times.

» One acoustic signal sounds.

- Within ten seconds, switch on the ignition.

You can now proceed to log on all the remote controls.

- Step through the following procedure with each remote control in turn:

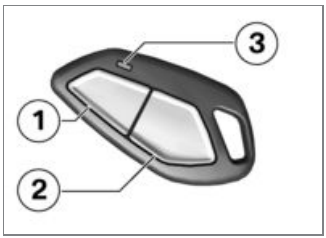


- Press and hold down buttons **1** and **2** until LED **3** stops flashing.
» LED **3** flashes for about ten seconds.
- Release buttons **1** and **2**.
» LED **3** is illuminated.
- Press button **1** or button **2**.
» One acoustic signal sounds, LED **3** goes out.

To complete logon:
- Switch off ignition.
» Three acoustic signals sound.
» Logon is also ended when
– four remote controls have been logged on.
– if you have logged on the first remote control and then do not press a button within approximately 30 seconds.

Synchronize the remote controls

If the central locking system stops responding to the signals from a remote control, the unit in question has to be synchronized. This can happen, for example, if the buttons on the remote control were pressed too frequently while the remote control was out of range of the anti-theft alarm.
- The procedure for synchronizing the remote controls is as follows:
- Switch on ignition.

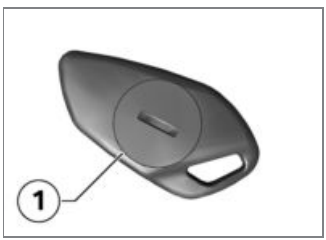


- Press and hold down buttons **1** and **2** until LED **3** stops flashing.
» LED **3** flashes for about ten seconds.
- Release buttons **1** and **2**.
» LED **3** is illuminated.
- Press button **1** or button **2**.
» LED **3** goes out.

Replacing battery of remote control

If you press a button on the remote control and the LED does not show or lights up only briefly:

- Replace the battery of the remote control.



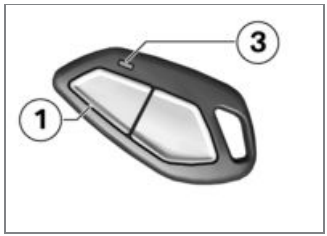
- Open lid of battery compartment **1**.
- Dispose of the old battery in accordance with legal regulations. Do not dispose of the battery in the household waste.

Using batteries of the wrong type or inserting batteries with reversed polarity can destroy the device.
Use a battery compliant with the manufacturer's specifications. When inserting the battery, make sure that the polarity is correct.◀

- Insert the new battery with the positive terminal up.

Battery design and nominal voltage
– CR 1632 lithium – 3 V

» The LED on the remote control lights up; the remote control has to be synchronized.



- Press button **1** twice.

» LED **3** flashes for a few seconds.

» The remote control is ready to operate again.

Anti-theft alarm system (DWA)

Activation without remote control

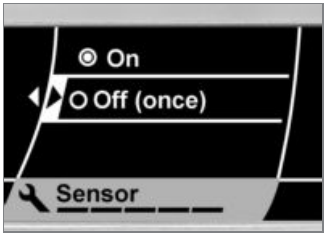
– with anti-theft alarm OE

- If applicable, switch on automatic activation of the anti-theft alarm after ignition OFF.

- Customizing anti-theft alarm settings (➠ 74).
- Switch off ignition.

» Activation takes 30 seconds to complete.
» Turn indicators are illuminated twice.
» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm system is activated.

- To deactivate the motion sensor (for example if you are about to transport the motorcycle on a train and the swaying movement of the moving train could trip the alarm), call up the `Settings` menu before switching off the ignition.
- Select `Vehicle` - `Alarm syst.` - `Sensor`.



- Select `Off (once)` to switch off the motion sensor this once.
- Switch off ignition.

» Activation takes 30 seconds to complete.
» Turn indicators are illuminated three times.
» Confirmation tone sounds three times (if programmed).
» The anti-theft alarm is active, the motion sensor is deactivated.

Activation with remote control

– with anti-theft alarm OE
– with central locking OE

- Switch off ignition.

- Press button **1** on the remote control twice.

See also the other functions of the remote control for the central locking system.◀

» Activation takes 30 seconds to complete.
» Turn indicators are illuminated twice.

» Confirmation tone sounds twice (if programmed).
» Anti-theft alarm system is activated.

- To deactivate the motion sensor (for example if you are about to transport the motorcycle on a train and the swaying movement of the moving train could trip the alarm), press button **1** on the remote control again during the activation phase.

» Turn indicators are illuminated three times.
» Confirmation tone sounds three times (if programmed).
» Motion sensor is deactivated.

Alarm

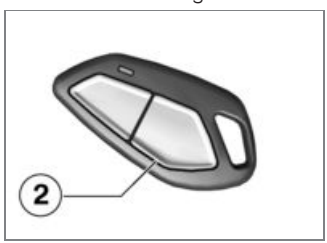
– with anti-theft alarm OE

The alarm can be triggered by
– the motion sensor
– an attempt to use an unauthorized key to switch on the ignition
– disconnecting the alarm system from the motorcycle battery (alarm system battery takes over the power supply - alarm sound only, no illumination of the turn indicators).

All functions are sustained even if the internal battery of the anti-theft alarm system is flat; the only difference is that an alarm cannot be triggered if the system is disconnected from the motorcycle's battery.

An alarm lasts for approximately 26 seconds. During the alarm, an alarm tone sounds and the turn indicators flash. The type of alarm sound can be programmed.

– with central locking OE



You can cancel an alarm at any time without deactivating the anti-theft alarm by pressing button **2** on the remote control.

If an alarm was triggered while the motorcycle was unattended, the rider is notified accordingly by an alarm tone sounding once

when the ignition is switched on. The anti-theft alarm system indicator lamp then signals the reason for the alarm for one minute. The meanings of the flash codes are as follows:

– Flashes 1x: Motion sensor 1
– Flashes 2x: Motion sensor 2
– Flashes 3x: Ignition switched on with unauthorized key
– Flashes 4x: Alarm system is disconnected from the motorcycle battery
– Flashes 5x: Motion sensor 3

Deactivation without remote control

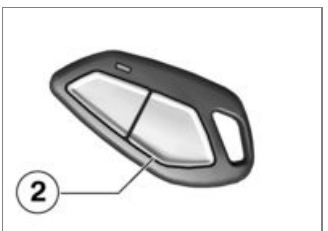
– with anti-theft alarm OE

- Safety cutout switch in operating position (run).
- Switch on ignition.

» Turn signals are illuminated once.
» Confirmation tone sounds once (if programmed).
» Anti-theft alarm is deactivated.

Deactivation with remote control

– with anti-theft alarm OE
– with central locking OE



- Press button **2** on the remote control once.

▷ See also the other functions of the remote control for the central locking system.◀

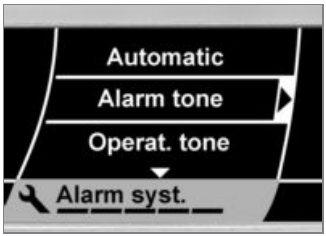
▷ If the alarm function is deactivated with the remote control, and if the ignition is not switched on subsequently, then the alarm function automatically becomes active again after 30 seconds when "Activation after ignition off" is programmed.◀

» Turn signals are illuminated once.
» Confirmation tone sounds once (if programmed).
» Anti-theft alarm is deactivated.

Customizing anti-theft alarm settings

– with anti-theft alarm OE

- Call up the `Settings` menu and select `Vehicle - Alarm syst.`.



The following settings are available:

– Automatic - On: Anti-theft alarm system is activated automatically when the ignition is switched off.
– Automatic - Off: Anti-theft alarm system has to be activated with the remote control when the ignition is switched off.
– Alarm tone: Type of alarm tone.
– Operat. tone - On: Turn indicators flash and one tone sounds as confirmation when the alarm is switched on or off.
– Operat. tone - Off: Turn indicators flash as only confirmation when anti-theft alarm is switched on or off.

• Make the desired adjustment using the Multi-Controller.

Tires

Checking tire pressure

Incorrect tire inflation pressure results in poorer handling characteristics of the motorcycle and reduces the life of the tires.

Ensure proper tire inflation pressure.◀

• Make sure ground is level and firm and park motorcycle.
• Check tire pressures against data below.

Tire pressure, front
– 42.1 psi (2.9 bar) (With tire cold)
Tire pressure, rear
– 42.1 psi (2.9 bar) (With tire cold)

If tire pressure is too low:

• Correct tire pressure.

Riding

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Safety instructions

Rider's Equipment

Do not ride without the correct clothing! Always wear:
– Helmet
– Rider's suit
– Gloves
– Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad retailer will be happy to advise you and has the correct clothing for every purpose.

Correct loading

Overloading and imbalanced loads can adversely affect the motorcycle's handling. Do not exceed the gross weight limit and observe the loading information.◀

- Adjust spring preload, suspension damping rate settings and tire inflation pressures for the current gross vehicle weight.
- Make sure that weight is uniformly distributed between right and left.
- Pack heavy luggage and cargo as low and as close to the center of the motorcycle as possible.
- Observe maximum payload and top speed as indicated on label in case.

– with topcase OA

- Observe maximum payload and top speed as indicated on label in topcase.◁

– with tank bag OA

- Observe maximum payload of tank bag and corresponding top speed.

Payload of tank bag
– ≤11 lbs (≤5 kg)

Speed limit for driving with tank bag
– ≤99 mph (≤160 km/h)◁

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:
– Settings of spring-strut and shock absorber system
– Imbalanced load
– Loose clothing
– Insufficient tire inflation pressure
– Poor tire tread
– Etc.

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colorless and odorless but highly toxic.

Inhaling exhaust fumes therefore represents a health hazard and can even cause loss of consciousness with fatal consequences.
Do not inhale exhaust fumes.
Do not run the engine in closed rooms.◀

Risk of burn injury

Engine and exhaust system become very hot when the vehicle is in use. There is a risk of burn injuries by contact with hot surfaces.
After parking the motorcycle, make sure that nobody comes into contact with the engine and exhaust system.◀

Catalytic converter

If misfiring causes unburned fuel to enter the catalytic converter, there is a danger of overheating and damage.
For this reason, observe the following points:
– Do not run the fuel tank dry
– Do not run the engine with the spark-plug cap removed
– Stop the engine immediately if it misfires
– Use unleaded fuel only
– Comply with all specified maintenance intervals.

Unburned fuel will destroy the catalytic converter.
Note the points listed for protection of the catalytic converter.◀

Danger of overheating

Cooling would be inadequate if the engine were allowed to idle for a lengthy period with the motorcycle at a standstill: overheating would result. In extreme cases, the motorcycle could catch fire.
Do not allow the engine to idle unnecessarily. After starting, ride off immediately.◀

Manipulation

Modifications of the motorcycle (e.g. engine management system, throttle valves, clutch) can cause damage to the affected components and failure of safety-related functions. Damage caused in this way is not covered by the warranty.
Do not make any modifications.◀

Checklist

Use the following checklist to check important functions, settings and wear limits before you ride off:

– Brakes
– Front and rear brake fluid levels
– Clutch function
– Clutch fluid level
– Shock absorber setting and spring preload
– Tread depth and tire inflation pressure
– Firm seating of cases and luggage

At regular intervals:
– Engine oil level (every time you refuel).
– Brake pad wear (during every third stop for refueling).

Starting

Starting the engine

- Switch on ignition.

» Pre-Ride Check in progress. (➠ 81)

» ABS self-diagnosis in progress. (➠ 81)

– with Dynamic Traction Control (DTC)[OE]

» DTC self-diagnosis is performed. (➠ 82)◁

- Engage neutral, or pull back clutch lever if a gear is engaged.

▷ You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if it is started with the transmission in neutral and then a gear is engaged before retracting the side stand.◀

- For cold starts and at low ambient temperatures: pull the lever to disengage the clutch and twist the throttle grip slightly.

- Press starter button **1**.

▷ The start attempt is automatically interrupted if battery voltage is too low. Recharge the battery before you start the engine, or use jump leads and a donor battery to start.◀

» Engine starts.

» Consult the troubleshooting chart if the engine refuses to start. (➠ 142)

Pre-Ride Check

The instrument cluster runs a test of the 'General' warning light when the ignition is switched on: this is the "Pre-Ride-Check". The test is aborted if you start the engine before it completes.

Phase 1

General warning light shows red.

– CHECK! is indicated.

Phase 2

General warning light shows yellow.

– CHECK! is indicated.

The SET light comes on.

If the 'General' warning light does not show:

Some malfunctions cannot be indicated if the 'General' warning light cannot be displayed.
Check that the 'General' warning light comes on, and that it shows red and yellow.◀

- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis

The self-diagnosis routine is determining whether the BMW Motorrad Integral ABS is ready for operation. The self-diagnosis routine launches automatically when you switch on the ignition.

Phase 1

» Check on system components monitored by diagnostic system while vehicle is parked.

ABS warning light flashes.

Phase 2

» Checking wheel sensors while starting off. The motorcycle must reach a speed of at least 3 mph (5 km/h) before the ABS self-diagnosis routine can be completed.

ABS warning light flashes.

ABS self-diagnosis completed

» The ABS warning lamp goes out.

If an ABS error is indicated following completion of the ABS self-diagnosis routine:

- It remains possible to continue riding. Bear in mind that neither the ABS function nor the integral braking function is available.

- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

DTC self-diagnosis

– with Dynamic Traction Control (DTC)[OE]

The readiness for operation of the BMW Motorrad DTC is checked by the self-diagnosis. The self-diagnosis routine runs automatically when you switch on the ignition.

Phase 1

» Check on system components monitored by diagnostic system while vehicle is parked.

DTC warning light flashes slowly.

Phase 2

» Checking the diagnosable system components while driving. The engine must be running and the motorcycle must reach a speed of at least 3 mph (5 km/h) in order for DTC self-diagnosis to complete.

DTC warning light flashes slowly.

DTC self-diagnosis completed

» The DTC symbol is no longer displayed.

If a DTC error is indicated after the DTC self-diagnosis is completed:

- It remains possible to continue riding. It must be noted that the DTC function is not available.
- Have the malfunction corrected as soon as possible at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Breaking in

Engine

- While running in the motorcycle, vary the throttle opening and engine-speed range frequently; avoid driving for long periods at a constant speed.
- Try to do most of your riding during this initial period on twisting, fairly hilly roads, avoiding highways if possible.
- Observe the engine run-in speeds.

Engine run-in speed
– <5000 min^{-1} (Odometer reading 0...186 miles (0...300 km))

Engine run-in speed
– <6000 min^{-1} (Odometer reading 186...621 miles (300...1000 km))
– no full throttle (Odometer reading 0...621 miles (0...1000 km))

- Have first run-in check conducted after 300 - 750 mls (500 - 1,200 km).

Brake pads

New brake pads must be run in before they achieve their optimum friction force. This initial reduction in braking efficiency can be compensated for by exerting greater pressure on the brake levers.

New brake pads can extend stopping distance by a significant margin.
Brake early.◀

Tires

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tires are run in. This running in procedure is essential if the tires are to achieve maximum grip.

New tires do not provide full tire traction. Accident hazards exist in particular on wet roads and at extreme angles. Always think well ahead and avoid extreme angles.◀

Brakes

How do you achieve the shortest stopping distances?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load at an individual wheel are accompanied by a rise in the effective braking force that the wheel can provide.
To achieve the shortest possible braking distance, the front brake must be applied quickly and with increasing force. This procedure provides ideal exploitation of the extra weight transfer to the front wheel. The clutch should also be disengaged at the same time.
With the "forced braking" often practiced in which the brake pressure is generated as quickly as possible and with great force, the dynamic load distribution cannot follow the increased deceleration and the braking force cannot be completely transferred to the road surface.
BMW Motorrad Integral ABS prevents the front wheel from locking.

Descending mountain passes

There is a danger of the brakes fading if you use only the rear brakes when descending mountain passes. Under extreme conditions, the brakes could overheat and suffer severe damage.
The BMW integrated braking function ensures that the rear wheel brake is also applied when the handbrake lever is actuated, thus providing protection against overheating. Simply apply the front wheel brake and use the engine brake.◀

Wet, soiled brakes

Moisture and dirt on the brake disks and the brake pads result in a decrease in the braking action. Delayed or poorer braking action must be expected in the following situations:

– When driving in the rain and through puddles.
– After washing the motorcycle.
– When driving on roads spread with salt.
– After working on the brakes due to oil or grease residues.
– When driving on soiled roads or offroad.

Poor braking action due to moisture and dirt.
Brake until brakes are dry or clean; clean if necessary.
Brake early until the full braking action is available again.◀

Parking your motorcycle

Side stand

• Switch off engine.

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.
Always check that the ground under the stand is level and firm.◀

• Fold out side stand and park motorcycle.

The side stand is designed to support only the weight of the motorcycle.
Do not lean or sit on the motorcycle with the side stand extended.◀

• If the slope of the road permits, turn the handlebars to the left.
• On a grade, the motorcycle should always face uphill; select 1st gear.

Center stand

• Switch off engine.

If the ground is soft or uneven, there is no guarantee that the motorcycle will rest firmly on the stand.
Always check that the ground

under the stand is level and firm.◄

Excessive movements could result in the center stand retracting, and the vehicle could topple as a result.
Do not sit on the motorcycle while it is resting on the center stand.◄

- Fold out center stand and jack up motorcycle.

Refueling

Fuel specifications

For optimal fuel economy, the gasoline should be sulfur-free or very low in sulfur content.

Leaded fuel will destroy the catalytic converter.
Do not refuel with leaded gasoline or gasoline with metallic additives, e. g. manganese or Iron.◄

Ethanol E85 might damage the engine and fuel supply system.
Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.◄

- Fuels with a maximum ethanol content of 10 %, i. e., E10, may be used for refueling.

Recommended fuel quality
– Super unleaded, (max. 10 % ethanol, E10) – 89 AKI (95 ROZ/RON) – 89 AKI

Refueling procedure

Fuel is highly flammable. Fire at the fuel tank can result in fire and explosion.
Do not smoke. Never bring a naked flame near the fuel tank.◄

Fuel attacks plastic surfaces, making them cloudy or unattractive.
Immediately wipe off plastic parts after contact with fuel.◄

- Make sure ground is level and firm and park motorcycle.
- Open protective cap.

- Unlock cap of fuel tank with ignition key and fold up.

Fuel expands when exposed to heat. When the tank is overfilled, fuel can escape and get onto the road. This results in a danger of falling.
Do not overfill the fuel tank.◀

- Refuel with a fuel meeting the specifications below, continuing until fuel is no higher than lower edge of filler neck.

When refueling after running on reserve, make sure that you top up the tank to a level above reserve, as otherwise the sensor will not be able to register the new level and the fuel warning lamp will not be switched off.◀

Usable fuel quantity
– Approx. 7 gal (Approx. 26.5 l)
Reserve fuel quantity
– Approx. 1.1 gal (Approx. 4 l)

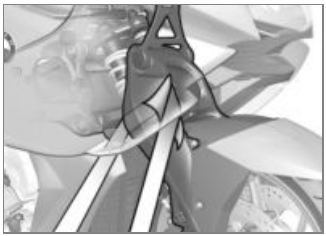
- Press fuel tank cap down firmly to close.
- Remove vehicle key and close protective cap.

Fastening motorcycle for transport

- Protect all components along which straps are routed against scratching. For example, use adhesive tape or soft cloths.

The motorcycle can tip away to the side and fall over.
Secure motorcycle against tipping away to the side, preferably with the help of a second person.◀

- Push motorcycle onto transport surface, and do not place on side stand or center stand.



The ball joint and the brake lines can suffer damage. Take care not to damage components.◀

- Pass the straps on left and right through the suspension and strap the motorcycle down.
- Fasten straps at rear on both sides on rear frame and tension.
- Do not pull the straps over the footrests.
- Uniformly tighten all the straps.

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Riding mode

Selection

Three riding modes enable the motorcycle's characteristics to adapt to the prevailing weather conditions, the road and traffic, and the rider's style of riding:
– RAIN
– ROAD
– DYNAMIC

Each riding mode affects the behavior of the motorcycle in a different way. DTC can be switched off in each mode; the explanations below invariably refer to conditions with the system switched ON. The last selected riding mode is reactivated automatically after the ignition is switched off and on again.
The following always applies: The sportier the selected mode, the more directly the engine output can be utilized. At the same time, the level of rider assistance that the DTC system offers decreases accordingly.
Therefore, consider the following when selecting the riding mode: The sportier the setting, the more demanding the requirements for the driving skill of the rider are!

RAIN
The engine output is only partially available. Power increase when you open the throttle is reserved, engine response is correspondingly soft.
The DTC system intervenes early enough to prevent the rear wheel from spinning. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the motorcycle remains very stable; movements of the tail are clearly perceptible only on slippery road surfaces (wet bitumen or wet cobblestones).

ROAD
In this mode the full engine output is available. Power increase when you open the throttle is more direct than in RAIN mode, the engine responds more rapidly.
DTC system intervention is later than in RAIN mode. On road surfaces with high to medium grip (dry and wet asphalt to dry cobblestones) the motorcycle remains stable. Slight rear-wheel drift is perceptible. Movements of the tail are clearly perceptible on slippery road surfaces (wet bitumen or wet cobblestones).

DYNAMIC
The DYNAMIC mode is the sportiest mode.
Power increase and engine response are the same as in ROAD mode. However, the driver's request is implemented much more directly.

DTC system intervention is even later, which means that even on dry asphalt drifting is possible under sharp acceleration when cornering.

Switchover

A mode change involving functions in the engine management system and the DTC system is possible only when drive torque is not applied to the rear wheel.
To obtain this state,
– the motorcycle must be stopped with the ignition switched on,

or
– the throttle must be turned back,
– the clutch must be actuated.

First the desired driving mode is preselected. The switchover does not take place until the affected systems are in the required state.
The selection menu does not disappear in the display until the driving mode has been switched over.

Brake system with BMW Motorrad Integral ABS

Partially integral brake

Your motorcycle is equipped with a partially integral brake configuration. Both front and rear brakes are applied simultaneously when you pull the handbrake lever.
The footbrake lever acts only on the rear brake.
The BMW Motorrad Integral ABS adapts the braking force distribution between the front and rear wheel brake to the loading of the motorcycle during braking.

Spinning of the rear wheel with the front brake pulled (burn out) is made impossible by the integral function. The result may be damage to the rear wheel brake and the clutch. Avoid burn-outs.◀

How does ABS work?

The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably poorer friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.
If the maximum transferrable braking force is exceeded when the driver increases the brake pressure, the wheels begin to lock and driving stability is lost, and a fall can result. Before this

situation occurs, ABS intervenes and adjusts the brake pressure to the maximum transferrable braking force. This enables the wheels to continue to turn and maintains driving stability regardless of the road surface condition.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferrable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the BMW Motorrad Integral ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

How is the BMW Motorrad Integral ABS noticeable to the rider?

If the ABS system must reduce the braking forces due to the conditions described above, then vibrations can be felt at the handbrake lever.
If the handbrake lever is pulled, then braking pressure is built up at the rear wheel with the integral function. If the footbrake lever is first actuated after this, the brake pressure already built up can be felt earlier than the counter-pressure, than when the footbrake lever is actuated before or together with the handbrake lever.

Lifting off rear wheel

Even during severe braking, a high level of tire grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a high-siding situation in which the motorcycle can flip over.

Heavy braking can lead to the rear wheel lifting off the ground.
When braking, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground.◀

What are the design characteristics of the BMW Motorrad Integral ABS?

The BMW Motorrad Integral ABS ensures driving stability on any surface within the limits of driving physics. The system is not optimized for special requirements resulting under extreme weather conditions offroad or on the racetrack.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If implausible values are detected over a longer period of time, the ABS function is deactivated for safety reasons and an ABS fault is indicated. The condition for a fault code is the completed self-diagnosis.
In addition to problems on the BMW Motorrad Integral ABS, unusual driving conditions can also lead to a fault code.
Unusual driving conditions:

- Heating up on the main or auxiliary stand at idle or with gear engaged.
- Rear wheel locked by the engine brake for a lengthy period, for example while descending on a loose surface.

Should a fault code result due to one of the driving conditions described above, the ABS function can be reactivated by switching the ignition off and then on again.

How important is regular maintenance?

Any technical system is always only as good as its maintenance condition.
To ensure that the BMW Motorrad Integral ABS is in an optimally maintained condition, it is vital that the specified inspection intervals be complied with.◀

Reserves for safety

But remember: the potentially shorter braking distances which BMW Motorrad Integral ABS permits must not be used as an excuse for careless riding. ABS is primarily a means of ensuring a safety margin in genuine emergencies.
Be careful in curves! When you apply the brakes on a corner, the motorcycle's weight and momentum take over and even BMW Motorrad Integral ABS is unable to counteract their effects.

Engine management with BMW Motorrad DTC

– with Dynamic Traction Control (DTC)[OE]

How does DTC work?

The BMW Motorrad DTC compares the wheel speeds of the front and rear wheel. From the speed difference the slip, and with it the stability reserves on the rear wheel are determined. When a slip limit is exceeded, the engine torque is adapted by the engine management system.

Even with DTC, the laws of physics cannot be overridden. The driver is always responsible for adapting his/her driving style.
Do not reduce the additional safety provided with risky driving.◀

What is the design baseline for BMW Motorrad DTC?

BMW Motorrad DTC is designed as an assistant system for the rider and for use on public roads. The extent to which the rider affects DTC control can be considerable (weight shifts when cornering, items of luggage loose on the motorcycle), especially when style of riding takes rider and machine close to the limits imposed by physics.
The system is not optimized for special requirements resulting under extreme weather conditions offroad or on the racetrack. You have the option of deactivating the BMW Motorrad DTC system for these circumstances.

Even with DTC, the laws of physics cannot be overridden. The driver is always responsible for adapting his/her driving style.
Do not reduce the additional safety provided with risky driving.◀

Special situations

As lean angles increase, acceleration potential is also progressively restricted by the laws of physics. This can result in reduced acceleration when coming out of very tight curves.

To detect spinning or slipping away of the rear wheel, the speeds of the front and rear wheel are compared and the angle is considered, for example. If these values are detected to be implausible for a long period, a replacement value is used for the angle and the DTC function is deactivated. In these cases, a DTC error is displayed. The

condition for a fault code is the completed self-diagnosis.
The BMW Motorrad DTC can issue an error message under the exceptional riding conditions outlined below.

Unusual driving conditions:

– Driving on the rear wheel (wheelie) for a longer period with DTC deactivated.
– Rear wheel spinning in place with front brake engaged (burn out).
– Heating up on an auxiliary stand at idle speed or with gear engaged.

If the front wheel loses contact to the ground during extreme acceleration, the DTC reduces the engine torque until the front wheel touches the ground again. In this case, BMW Motorrad recommends turning back the throttle grip somewhat to achieve a stable driving state again as quickly as possible.

On a slippery surface, the throttle grip should never be suddenly turned back completely without pulling the clutch at the same time. The engine braking torque can cause the rear wheel to slip, resulting in an unstable driving state. This case cannot be controlled by the BMW Motorrad DTC.

Tire Pressure Control TPC/RDC

– with Tire Pressure Control (TPC/RDC)[OE]

Function

A sensor is located in each tire, which measures the air temperature and the inflation pressure inside the tire and sends these values to the control unit.

The sensors are equipped with a switch, which does not enable the transmission of the measured values until a speed of approx. 19 mph (30 km/h) is reached. The display shows "––" for each tire until the tire-pressure signal is received for the first time. The sensors continue to transmit the measured values for approx. 15 minutes after the motorcycle comes to a stop.
If a TPC/RDC control unit is installed, however the wheels have no sensors, then an error message is output.

Temperature compensation

The tire inflation pressure is temperature dependent, i.e., it increases or decreases together with the tire temperature. The tire temperature is dependent on the ambient temperature and on the driving style and duration.

The tire inflation pressures are shown temperature-compensated in the multifunction display; they refer to a tire temperature of 68 °F (20 °C). No temperature compensation takes place in the inflation pressure testers at filling stations, meaning that the measured tire inflation pressure varies according to tire temperature. As a result, the pressure figures indicated by the gauges at filling stations will usually vary from those appearing in the multifunction display. The warmer the tire, the higher the gauge reading by comparison with the reading shown on the display.

Adjusting inflation pressure

Compare the TPC/RDC value in the multifunction display with the value on the back cover of the Rider's Manual. The difference between the two values must be compensated with the air pressure tester at the filling station.

Example: According to the Rider's Manual, the tire inflation pressure is to be 42 psi (2.9 bar), however 39 psi (2.7 bar) is shown in the multifunction display. The tester at the filling station indicates 36 psi (2.5 bar). This value must be increased by 3 psi (0.2 bar) to 39 psi (2.7 bar) in order to produce the correct tire inflation pressure.

ESA II Electronic Suspension Adjustment

– with Electronic Suspension Adjustment (ESA) OE

Chassis adjustments

The proper loading state must first be selected when the motorcycle is stationary according to the motorcycle's load. Depending on the riding mode selected, the damping levels are set on both spring struts and the spring base and spring rate are set on the rear spring strut. If the selected riding mode is changed, the spring rate on the rear spring strut is also adjusted in addition to the damping of both spring struts. This enables very precise adjustment of the chassis to all riding conditions, including while riding.

– The combination of spring base, damping and spring rate ensures the chassis geometry is always appropriate.
– The static normal position is virtually maintained while riding.
– The different riding and loading conditions are offset so that the handling of the motorcycle remains constant.

It is possible to electrically change the spring rate through the combination of a conventional coil spring with a plastic element (Elastogran), the lateral expansion of which can be electrohydraulically limited using a displaceable sleeve. The more the sleeve surrounds the plastic element, the more its expansion is limited and the spring rate increases. The highest spring rate is achieved when the sleeve completely encloses the plastic element and sits on the steel spring. Accordingly, the spring rate is lower, the less the sleeve limits the expansion of the plastic element.

Accessories

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General instructions

BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
Use only parts and accessories approved by BMW for your motorcycle.◀

The safety, function and suitability of the parts and accessory products have been checked extensively by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be liable for unapproved parts and accessory products of any kind.
Whenever you are planning modifications, comply with all the legal requirements. The vehicle must not infringe on national road-vehicle construction and use regulations of your country.
Observe the information on the importance of tire sizes for chassis control systems (➠ 120).
Your authorized BMW Motorrad retailer offers you qualified advise when choosing genuine BMW parts, accessories and other products.
You will find all optional accessories from BMW Motorrad at our Internet site: **"www.bmw-motorrad.com"**.

Onboard power sockets

Information on using onboard power sockets:

Automatic deactivation

If this warning symbol appears it tells you that the onboard system voltage is low. The onboard sockets might be temporarily switched off.

The onboard sockets are also switched off when the engine is being cranked by the starter and If maximum load capability as stated in the technical data is exceeded.
If several onboard sockets are being operated, the total current may not exceed the maximum loadability.

Operating electrical accessories

You can start using electrical accessories connected to an onboard socket only when the ignition is switched on. If you subsequently switch off the ignition the sockets are also switched off if the power drain caused by their electrical consumers is high. If the power drain is low the sockets remain operational for a certain period of time before being switched off.

Cable routing

The cords from the power sockets to the devices must be routed in such a way that they:

– do not interfere with the rider's freedom of movement
– do not limit steering angles and handling characteristics
– cannot be caught or trapped.

Navigation device

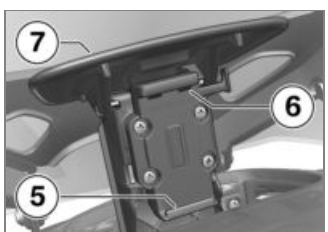
– with preparation for navigation device OE
– with navigation system OA

Installing navigation device

• Switch on ignition.

• Press button **1** to open the slot for the navigation device.
» Slot cover pops open, windscreen moves to top limit position.
• Pull slot cover up as far as it will go.
• From behind, push out cap **2**.

• Operate latch **3** and remove cover **4**.



• Initially insert the navigation device into mount **5**, then press it into latching mechanism **6**.

- Check that the navigation device is secure in the cradle.
- Press cover **7** to push cradle with navigation device into the slot until it snaps into position.

Removing navigation device

- Switch on ignition.

- Press button **1** to open the slot for the navigation device.

» Slot cover pops open, windscreen moves to top limit position.

- Pull slot cover up as far as it will go.

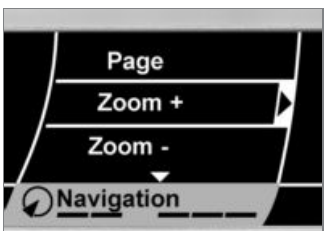
- Operate latch **3**, pull the navigation device forward out of holder **6** and lift it up and out.

- Install cover **4**.
- Press cover **7** to push the cradle into the slot until it snaps into position.

- Insert cap **2**.

Operating navigation device

- If applicable, switch on the navigation device.
- Call up the Navigation menu.



The options for using the navigation device appear on the display.

– Page: You can page from view to view; the choices are main menu, map and onboard computer.
– Zoom +: Performs functions marked with a minus sign + in the navigation system. In the map view, for instance, the view zooms in on the map detail.
– Zoom –: Performs functions marked with a minus sign - in the navigation system. In the map view, for instance, the view zooms out from the map detail.
– Speak: The last navigation announcement is spoken again. The announcement is spoken again even if automatic spoken announcements have been switched off in the settings of the navigation system.
– Mute: Automatic spoken announcements are toggled off and on.
– Display Off: The display of the navigation device is toggled off and on.

- Select the function you want and implement the function by pushing the Multi-Controller to the right.

Special functions

Integration of the BMW Motorrad Navigator IV into the K 1600 GT / K 1600 GTL series has produced a number of deviations from the descriptions in the user guide for the Navigator.

Traffic channel (TMC)

If the motorcycle is fitted with an audio system, the audio system sends the traffic announcements to the Navigator. The symbol described in the user guide for the Navigator appears on the display. It is not possible to receive traffic announcements from subscription services via the BMW Motorrad audio system.

Reserve fuel level warning

The settings for the fuel gauge enable you to define a distance that is covered per tankful of fuel. The motorcycle sends the fig-

ure for residual range possible with the fuel remaining in the fuel tank to the Navigator, so it is no longer necessary to enter this value.

Time and date

The Navigator sends time and date to the motorcycle. Acceptance of these data for the readings on the instrument panel has to be activated in the user settings for the motorcycle.

Security settings

The BMW Motorrad Navigator IV can be secured against unauthorized use with a four-digit PIN (Garmin Lock). If this function is activated, while the Navigator is cradled on the motorcycle and the ignition is switched on you are prompted to add the motorcycle to the list of secured vehicles. If you answer "Yes" at this prompt the Navigator saves the VIN of this vehicle in its internal memory.

A maximum of five VINs can be saved in this way.

Subsequently, the PIN does not have to be entered when the Navigator is switched on by ignition ON while cradled in any of these vehicles.

If the Navigator is removed from the vehicle while switched on, a security prompt asking for the PIN to be entered is issued.

Screen brightness

Screen brightness is adjusted by the motorcycle while the unit is cradled. There is no provision for manual input.

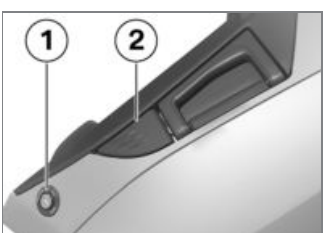
Case

Opening case

– with central locking OE

- If applicable, open the central locking.◁

- Turn the key to the in the case lock to the position indicated by the dot.



- Press lock barrel **1** downward.

» Release lever **2** pops up.

- Pull the release lever all the way up and open the lid of the case.

Closing case

- Pull release lever **2** all the way up.
- Close case lid and press down. Ensure that no luggage is trapped between lid and case.

The case can also be closed when the lock is in the LOCK position. In this case, it should be ensured that the ignition key is not in the case.◀

- Push release lever **2** down, continuing until it engages.
- Turn key in case lock into LOCK position and remove.

Removing case

- Turn key in case lock to RELEASE position.

» Handle pops out.

- Pull carry handle **3** up as far as it will go.

» Case is released and can be removed.

Mounting case

- Fold up handle as far as possible.

- Insert case in brackets **4**.

- Press handle **3** down until it engages.
- Turn key in case lock into LOCK position and remove.

Topcase

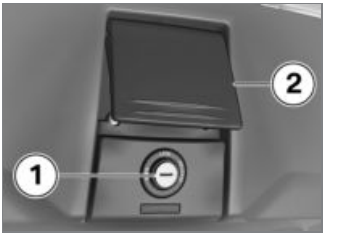
Open the topcase

– with topcase [OA]

– with central locking [OE]

- If applicable, open the central locking.◁

- Turn the key to the in the topcase lock to the position indicated by the dot.



- Press lock barrel **1** forward.

» Release lever **2** pops up.

- Pull the release lever all the way up and open the lid of the topcase.

Closing the topcase

– with topcase [OA]

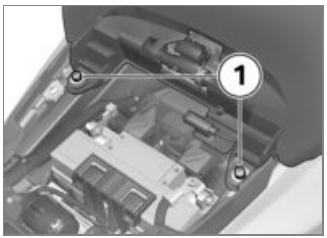
- Pull release lever **2** all the way up.
- Close topcase lid and hold it down. Ensure that no luggage is trapped between lid and case.

The topcase can also be closed when the lock is in the LOCK position. In this case, it should be ensured that the ignition key is not in the topcase.◀

- Push release lever **2** down, continuing until it engages.
- Turn key in topcase lock into LOCK position then extract it.

Removing passenger seat

- Switch off ignition.
- Remove rider's seat (➠ 58).

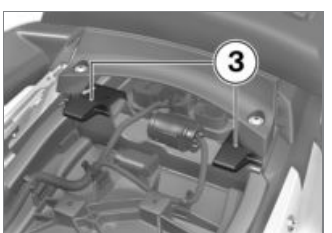


- Remove screws **1**.
- Pull the rear seat slightly forward and lift the seat slightly.

- Disconnect plug **2** of the seat heating and remove the rear seat.
- Lay the seat on the cover side on a clean surface.

Installing passenger seat

- Connect plug **2** of the seat heating.



- Slip the rear seat under mounts **3** and lower it into position.

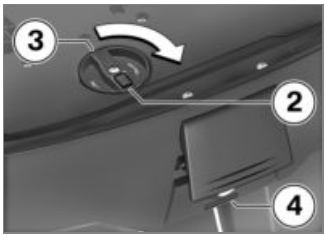
- Install screws **1**.

Removing topcase

– with topcase OA

- Remove rider's seat (➠ 58).
- Removing passenger seat (➠ 107).

- Disconnect plug connection **1**.
- Work the topcase end-plug through to the rear.
- Open topcase.
- If applicable, empty the topcase and lift out the bottom mat.



- Push slide latch **2** toward the outside and hold it in this position.
- Turn rotary latch **3** in the direction indicated by the RELEASE arrow.

» Release warning **4** is visible.

- Close topcase.

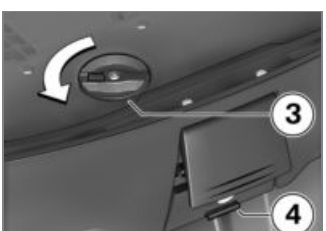
- Raise the rear of the topcase and pull it off luggage rack.
- Installing passenger seat (➠ 108).
- Installing driver's seat (➠ 58).

Mounting the topcase

– with topcase[OA]

- Remove rider's seat (➠ 58).
- Removing passenger seat (➠ 107).
- If applicable, empty the topcase and lift out the bottom mat.

- Set the topcase on the luggage carrier.
- Open the topcase (➠ 106).



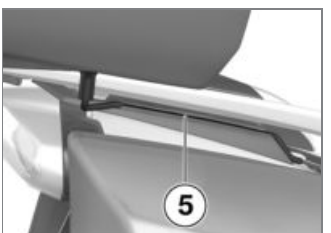
- Turn rotary latch **3** as far as it will go in the direction indicated by the LOCK arrow

while pressing down on the back edge of the topcase.

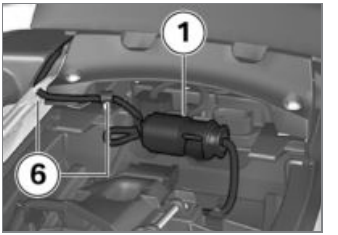
» Release warning **4** is no longer visible.

If the release warning is still visible the topcase is not correctly secured.

- Make sure that the topcase is correctly seated on the luggage carrier.



- Route the connecting cable forward in cable guide **5**.



- Work the cable into position at positions **6**.
- Close plug connection **1**.

- Installing passenger seat (➠ 108).
- Installing driver's seat (➠ 58).

Maintenance

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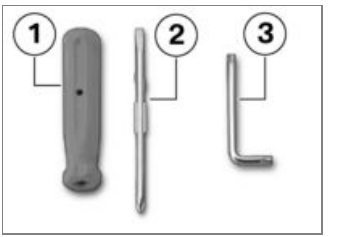
General instructions

The 'Maintenance' chapter describes work involving the checking and replacement of wear parts that can be performed with a minimum of effort.
If special tightening torques are to be taken into account for assembly, these are listed. An overview of all required tightening torques is contained in the chapter "Technical Data".
Information on additional maintenance and repair work is provided in the Repair Manual for your vehicle on DVD, which you can obtain from your authorized BMW Motorrad retailer.

Special tools and thorough specialized knowledge are required to carry out some of the work described here. If you are in doubt, consult an authorized workshop, preferably your authorized BMW Motorrad retailer.

Onboard tool kit

Standard tool kit



1 Screwdriver handle
2 Reversible screwdriver insert
with Phillips PH1 and Torx T25
– Adjust damping on rear wheel (➠ 65).
3 Torx wrench, T25/T30
T25 on short end, T30 on long end
– Replace bulb for high-beam headlight (➠ 128).
– Remove license-plate carrier.

Engine oil

Checking engine oil level

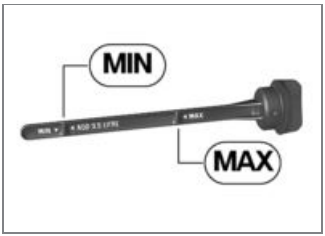
The engine can seize if the oil level is low, and this can lead to accidents.
Always make sure that the oil level is correct.◀

The oil level varies with the temperature of the oil. The higher the temperature, the higher the level of oil in the sump. Checking the oil level with the engine cold or after a short trip leads to misinterpretations of the oil fill quantity.
To ensure that the display of the

engine oil level is correct, only check the oil level with the engine at operating temperature.◀

- Make sure ground is level and firm and place motorcycle at operating temperature on its center stand.
- Allow engine to idle until fan starts, then let it continue running for an additional minute.
- Switch off the engine and wait for about one minute to allow the oil to drain into the sump.
- Wipe area around oil filler location clean.

- Remove oil dipstick **1** and wipe it with a clean, dry cloth.
- Position oil dipstick on oil filler opening, but do not screw in.
- Remove oil dipstick and read fluid level.



Specified level of engine oil
– between MIN and MAX marking (Engine at operating temperature)
Engine oil, quantity for topping up
– max 0.5 quarts (max 0.5 l) (Difference between MIN and MAX)

If the oil level is below MIN mark:

- Topping up engine oil (➠ 114).

If oil level is above MAX mark:
- Have fluid level corrected by an authorized workshop, preferably an authorized BMW Motorrad retailer.
- Install oil dipstick.

Topping up engine oil

- Make sure ground is level and firm and park motorcycle.
- Wipe area around fill location clean.

- Remove oil dipstick **1**.

Both too little and too much engine oil can lead to engine damage.
Always make sure that the oil level is correct.◀

- Add engine oil up to specified level.
- Checking engine oil level (➠ 112).
- Install oil dipstick.

Brake system

Checking brake operation

- Actuate the handbrake lever.
» Pressure point must be clearly perceptible.
- Actuate the footbrake lever.
» Pressure point must be clearly perceptible.

If no clear pressure points are perceptible:

Incorrect working practices endanger the reliability of the brakes.
Have all work on the brake system carried out by specialists.◀

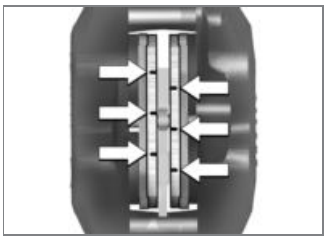
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Check front brake pad thickness

- Make sure ground is level and firm and park motorcycle.

- Visually inspect left and right brake pads to determine their thickness. Viewing direction:

between wheel and front suspension toward brake pads **1**.



Front brake-pad wear limit
– min 0.04 in (min 1.0 mm) (Only friction material without carrier plate. Wear markings (grooves) must be clearly visible.)

If the wear indicators are no longer clearly visible:

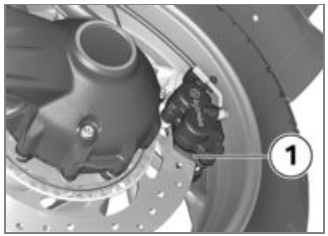
Dropping below the minimum pad thickness leads to reduced braking performance and may result in damage to the brakes.

In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀

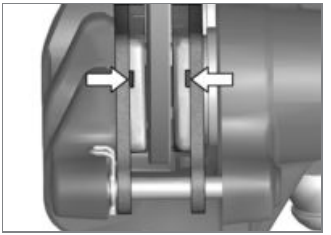
- Have the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad dealer.

Check rear brake pad thickness

- Make sure ground is level and firm and park motorcycle.



- Conduct a visual inspection of the brake pad thickness. Viewing direction: from below toward brake pads **1**.



Rear brake-pad wear limit

– min 0.04 in (min 1.0 mm) (Only friction material without carrier plate. Do not permit wear to progress to the point at which the wear indicators (grooves) are reached.)

If the wear indicating mark is no longer visible:

Dropping below the minimum pad thickness leads to reduced braking performance and may result in damage to the brakes.
In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.◀

- Have the brake pads replaced at an authorized service facility, preferably an authorized BMW Motorrad dealer.

Checking front brake fluid level

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.
Check brake fluid level regularly.◀

- Make sure ground is level and firm and place motorcycle on its center stand.

- Check brake fluid level in front brake-fluid reservoir **1**.

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear. The decreasing fluid level is compensated with an easy-to-see black rubber bellows.◀

Front brake fluid level
– Brake fluid, DOT4
– The brake fluid level must not fall below the MIN mark. (Brake fluid reservoir horizontal, motorcycle standing upright and handlebars straight ahead.)

If brake fluid level falls below the approved level:

- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

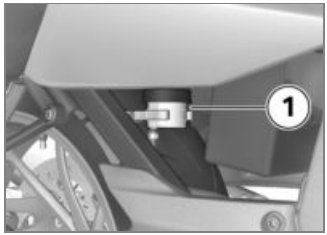
If the lower edge of the black bellows in the brake-fluid reservoir is below the MAX graduation:

- Check front brake pad thickness (➠ 114).

Checking rear brake fluid level

A low fluid level in the brake reservoir can allow air to penetrate the brake system. This significantly reduces braking efficiency.
Check brake fluid level regularly.◀

- Make sure ground is level and firm and place motorcycle on its center stand.



- Check level of brake fluid in rear brake-fluid reservoir **1**.

The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.◀

Rear brake fluid level
– Brake fluid, DOT4
– The brake fluid level must not fall below the MIN mark. (Brake-fluid reservoir horizontal, motorcycle standing upright.)

If brake fluid level falls below the approved level:

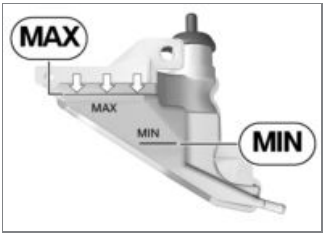
- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Coolant

Check coolant level

- Make sure ground is level and firm and park motorcycle.
- Allow the engine to cool down.

- Read off coolant level on expansion tank **1**.



Coolant, specified level
– between MIN and MAX marks on the expansion tank (With cold engine)

If coolant level drops below approved level:

- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Clutch

Check clutch function

- Pull back the clutch lever.

» Pressure point must be clearly perceptible.

If no clear pressure point can be felt:

- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking clutch fluid level

- Make sure ground is level and firm and place motorcycle on its center stand.
- Move handlebars into straight-ahead position.

- Read off clutch fluid level at reservoir **1**.

The fluid level in the clutch fluid reservoir rises due to clutch wear.◀

Clutch fluid level (visual check)
– Clutch fluid level must not drop.

If clutch fluid level drops:

Unsuitable hydraulic fluids could cause damage to the clutch system.

No fluids may be poured in.◀

- Have the defect corrected as soon as possible by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Wheel rims and tires

Check wheel rims

- Make sure ground is level and firm and park motorcycle.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

Checking tire tread depth

The handling of your motorcycle can already change for the worse before the legally prescribed minimum tread depth is reached.

Have tires replaced even be-

fore the minimum tread depth is reached.◀

- Make sure ground is level and firm and park motorcycle.
- Measure tire tread depth in main tread grooves with wear indicating marks.

Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indicated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow.◀

When the minimum tread depth is reached:

- Replace tires concerned.

Wheels

Tire recommendation

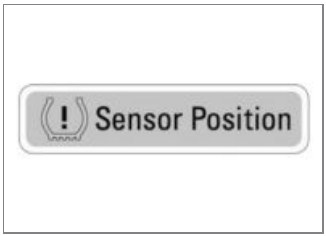
For every size of tire, BMW Motorrad has tested and approved certain makes as roadworthy. BMW Motorrad cannot evaluate the suitability of other tires, and can therefore take no responsibility for their driving safety.
BMW Motorrad recommends only using the tires tested and approved by BMW Motorrad. Extensive information is available at your authorized BMW Motorrad retailer or on the Internet at **"www.bmw-motorrad.com"**.

Affect of wheel sizes on chassis control systems

The wheel sizes play a major role in the chassis control systems ABS and DTC. Especially the diameter and width of the wheels are stored in the control unit as the basis for all necessary calculations. A change in these sizes due to conversion to others than the wheels installed as standard equipment can seriously affect the control comfort of these systems.
The sensor wheels required for wheel speed detection must also match the control systems installed and may not be replaced.
If you want to equip your motorcycle with different wheels, please speak to a specialist service facility, and preferably a BMW Motorrad retailer. In some cases the data stored in the control units can be adapted to the new wheel sizes.

TPC/RDC sticker

– with Tire Pressure Control (TPC/RDC)[OE]

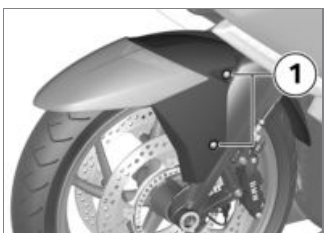


If tires are inexpertly removed, the RDC sensors may be damaged.
Inform the authorized BMW Motorrad retailer or the specialist service facility on the fact that the wheel is equipped with a RDC sensor.◀

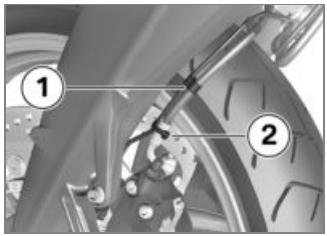
On motorcycles equipped with TPC/RDC, a corresponding sticker is located on the wheel rim at the position of the TPC/RDC sensor. During a tire change it must be ensured that the TPC/RDC sensor is not damaged. Inform the BMW Motorrad retailer or the authorized workshop of the TPC/RDC sensor.

Removing front wheel

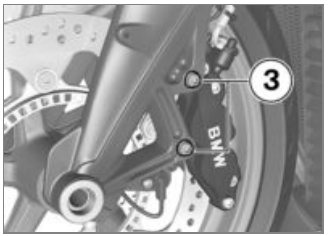
- Make sure ground is level and firm and place motorcycle on its center stand.



- Remove screws **1** on left and right.
- Pull out front wheel cover toward front.



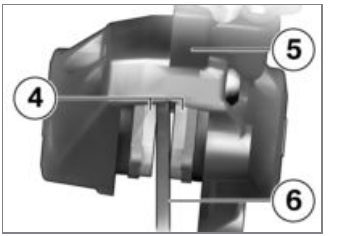
- Unclip retaining clip **1** of the sensor cable from the brake line.
- Remove cable tie **2**.
- Mask off area of wheel rim that could be scratched in process of removing brake calipers.



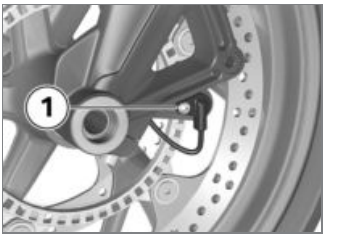
Once the calipers have been removed, there is a risk of the brake pads being pressed together to the extent that they cannot be slipped back over the brake rotor on reassembly.

Do not operate the handbrake lever when the brake calipers have been removed.◀

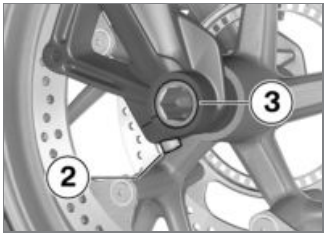
- Remove screws **3** of brake calipers on left and right.



- Push brake pads **4** apart slightly by rocking brake caliper **5** back and forth against brake disk **6**.
- Carefully pull brake calipers back and out until clear of brake disks.



- Remove screw **1** and extract the ABS sensor from its socket.
- Raise front of motorcycle until the front wheel can turn freely. BMW Motorrad recommends the BMW Motorrad front wheel stand for lifting the motorcycle.
- Mounting front wheel stand (➠ 126).



The left clamping device fixes the threaded bush in place in the front suspension.
A poorly aligned threaded bush results in incorrect spacing between the sensor ring and the sensor, and therefore to ABS malfunctions or destruction of the sensor.
To ensure the proper alignment of the threaded bush, do not loosen or remove the left clamping device.◀

- Remove right-hand axle clamping screw **2**.
- Remove quick-release axle **3** while supporting wheel.
- Roll front wheel forward to remove.

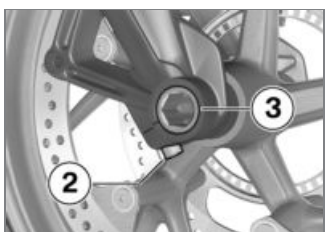
Installing front wheel

Malfunctions may occur during control interventions by ABS and DTC if a wheel other than the standard wheel is installed.
Please see the information on the effect of wheel sizes on the chassis control systems ABS and DTC at the beginning of this chapter.◀

Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage.
Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀

The front wheel must be installed right way round to rotate in the correct direction. Observe the direction of rotation arrows on the tires or on the rim.◀

- Roll front wheel into front wheel guide.



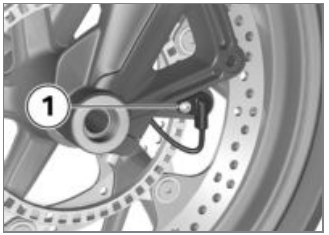
- Lift front wheel and install quick-release axle **3** with torque.

Quick-release axle in threaded bush (wheel carrier)
– 37 lb/ft (50 Nm)

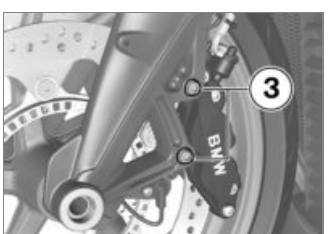
- Tighten the right-hand axle clamping screw **2** with the specified torque.

Clamping screw for quick-release axle to wheel carrier
– 14 lb/ft (19 Nm)

- Remove front wheel stand.



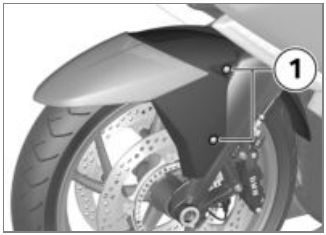
- Insert ABS sensor into hole and install screw **1**.
- Slide the brake calipers onto the brake rotors.



- Install securing screws **3** on left and right with specified torque.

Front brake caliper on wheel carrier
– 22 lb/ft (30 Nm)

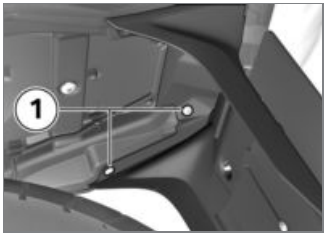
- Clip retaining clip **1** of the sensor cable to the brake line.
- Secure new cable tie **2**.
- Remove adhesive tape from wheel rim.
- Press handbrake lever firmly a number of times until resistance point is noticeable.



- Install front wheel cover and fit screws **1** on right and left.

Removing rear wheel

- Make sure ground is level and firm and place motorcycle on center stand.
- Remove case if necessary.



- Remove screws **1** on left and right.
- Remove the license-plate carrier.
- Shift into first gear.

Danger of burns from the hot exhaust system.
Do not touch the exhaust system. If necessary, do not continue work until the exhaust system has cooled down.◀

- Remove five screws **1** on rear wheel, holding wheel as you do so.
- Lower rear wheel to the ground and roll out toward rear.

Installing rear wheel

Malfunctions may occur during control interventions by ABS and DTC if a wheel other

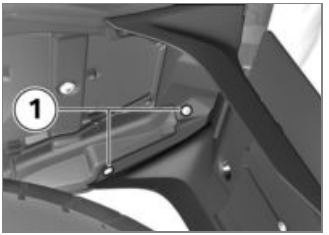
than the standard wheel is installed.
Please see the information on the effect of wheel sizes on the chassis control systems ABS and DTC at the beginning of this chapter.◀

Threaded fasteners not tightened to the specified torque can work loose or their threads can suffer damage. Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.◀

- Roll and mount rear wheel onto rear wheel support.

- Fit five screws **1** and tighten diagonally with specified torque.

Tighten rear wheel on wheel flange
– Tightening sequence: diagonally
– 44 lb/ft (60 Nm)



- Hold the license-plate carrier in position.
- Install screws **1** on left and right.

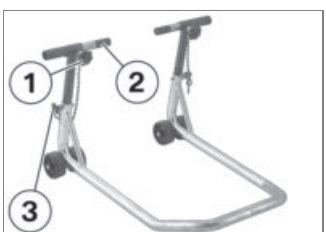
Front wheel stand

Mounting front wheel stand

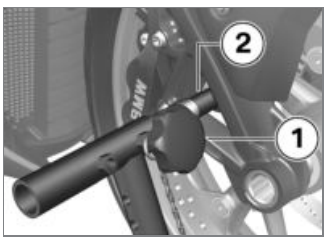
The BMW Motorrad front wheel stand is not designed for holding motorcycles without a center or other auxiliary stands. A motorcycle standing on the front wheel stand and the rear wheel alone can fall over.
Place the motorcycle on the

center stand or an auxiliary stand before lifting it with the BMW Motorrad front wheel stand.◀

- Use basic stand with part number (83 30 0 402 241) in combination with front-wheel adapter (83 30 0 402 243).
- Make sure ground is level and firm and place motorcycle on its center stand.



- Loosen locating screws **1**.
- Push two mounting pins **2** far enough apart that front suspension fits between them.
- Use locating pins **3** to set front wheel stand to desired height.
- Center front wheel stand relative to front wheel and push it against front axle.



The sensor ring of the BMW Motorrad Integral ABS can be damaged.
Only push the left mounting pin so far inward that it does not touch the sensor ring.◀

- Push two mounting pins **2** through triangles of brake caliper support toward inside so that front wheel can still be rolled through.
- Tighten locating screws **1**.

If the motorcycle is resting on the center stand: the motorcycle is raised too far at the front, the center stand lifts off the ground and the motorcycle can tip over to the side.
When raising the motorcycle, make sure that the center stand remains on the ground.◀

- Apply uniform pressure to push front wheel stand down and raise motorcycle.

Jump-starting

The wires leading to the power socket do not have a load-capacity rating adequate for jump-starting the engine. Excessively high current can lead to a cable fire or damage to the vehicle electronics.
Do not use the socket to jump-start the engine of the motorcycle.◀

Touching live parts of the ignition system with the engine running can cause electric shock.
Do not touch parts of the ignition system when the engine is running.◀

A short-circuit can result if the crocodile clips of the jump leads are accidentally brought into contact with the motorcycle.
Use only jump leads fitted with fully insulated crocodile clips at both ends.◀

Jump-starting with a donor-battery voltage higher than 12 V can damage the motorcycle electronics.
The battery of the donor vehicle must have a voltage of 12 V.◀

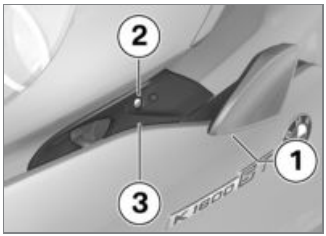
- When jump-starting the engine, do not disconnect the battery from the onboard electrical system.
- Remove rider's seat (➠ 58).
- Allow the engine on the support vehicle to run while jump-starting.
- Begin by clamping one end of the red jumper cable to the positive terminal of the discharged battery and clamping the other end to the positive terminal of the donor battery.
- Then clamp one end of the black jumper cable to the donor battery's negative terminal while connecting the other end to discharged battery's negative terminal.
- Start engine of the vehicle with discharged battery in usual way; if engine does not start, wait a few minutes before repeating attempt in order to protect starter motor and donor battery.
- Allow both engines to idle for a few minutes before disconnecting jumper cables.
- Disconnect jumper lead from negative terminal first, then from positive terminal.
- Installing driver's seat (➠ 58).

Bulbs

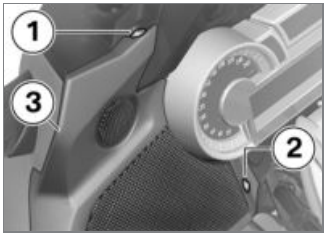
Replace bulb for high-beam headlight

The description below steps you through the procedure for replacing the left bulb. Replacement is carried out

in the same way on the right side.◀

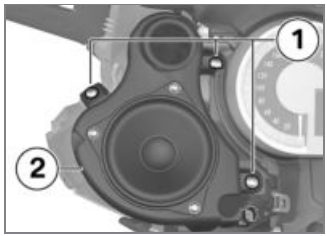


- Turn slipstream deflector **1** out.
- Remove screw **2** and work side cover **3** to the rear and remove.

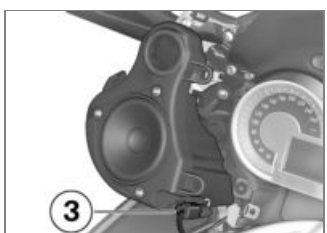


- Remove screw **1**.
- Switch on the ignition and raise the windscreen to its highest position.
- Remove screw **2** and work hand protector **3** to the side to remove.
- Switch off the ignition and wait until the windscreen has moved to its lowest position.

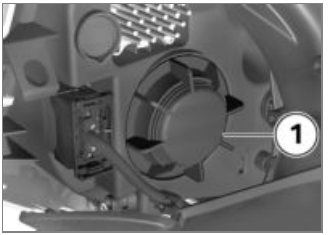
– with US audio system with navigation preparation OE



- Remove screws **1**.
- Work speaker unit **2** to the rear to remove.◁

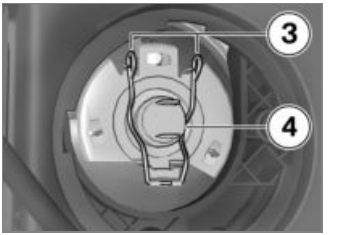


- Disconnect connector **3**.◁



- Turn covers **1** counterclockwise to remove.

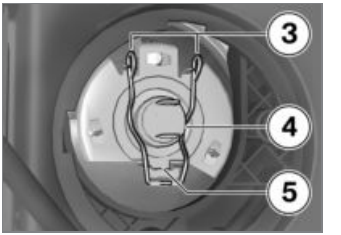
- Disconnect plug **2**.



- Release spring clip **3** at left and right and swing it up.
- Remove bulb **4**.
- Replace defective bulb.

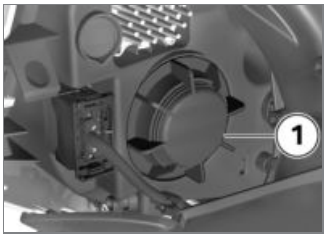
	Bulb for high-beam headlight
– H7 / 12 V / 55 W	

- To protect the glass against soiling, only grasp the bulb by the base.



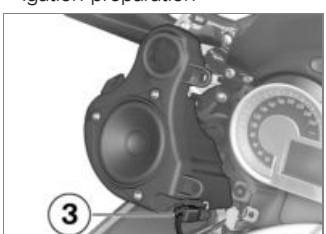
- Install bulb **4** while ensuring correct position of lug **5**.
- Insert spring clip **3**.

- Attach plug **2**.

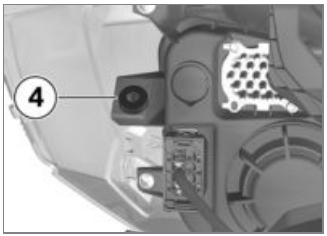


- Turn covers **1** clockwise to install.

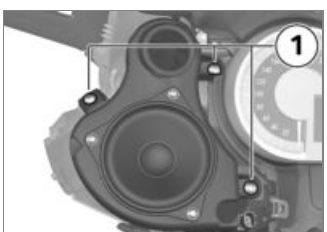
– with US audio system with navigation preparation[OE]



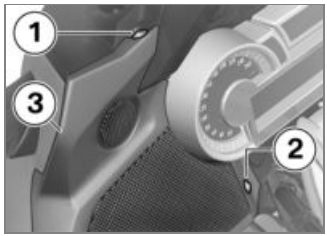
- Close plug connection **3**.◁



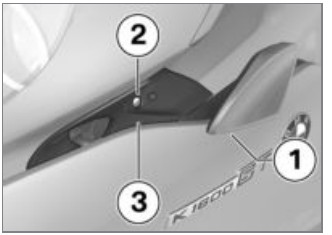
- Seat the speaker unit in mount **4**.◁



- Install screws **1**.◁
- Switch on the ignition and raise the windscreen to its highest position.



- Hold hand protector **3** in position and install screw **2**.
- Switch off the ignition and wait until the windscreen has moved to its lowest position.
- Install screw **1**.



- Hold side cover **3** in position and install screw **2**.
- Align slipstream deflector **1**.

Replace additional LED headlight

– with additional LED headlight OE
– with LED auxiliary headlight OA

The additional LED headlights can only be completely replaced.

- Please contact a specialist service facility for this purpose, preferably an authorized BMW Motorrad retailer.

Replacing the LED turn indicator

LED turn indicators can be completely replaced only.

- Please contact a specialist service facility for this purpose, preferably an authorized BMW Motorrad retailer.

Replace LED tail light

The LED tail light can only be completely replaced.

- Please contact a specialist service facility for this purpose, preferably an authorized BMW Motorrad retailer.

Battery

Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims.

Compliance with the points below is important in order to maximize battery life:

– Keep the surface of the battery clean and dry
– Do not open the battery
– Do not top up with water
– Be sure to read and comply with the instructions for charging the battery on the following pages
– Do not turn the battery upside down.

⚠ If the battery is not disconnected, the onboard electronics (clock etc.) will drain the battery. This can cause the battery to run flat. If this happens, warranty claims will not be accepted.

During driving breaks of more than 4 weeks, a trickle-charger should be connected to the battery.◀

BMW Motorrad has developed a trickle-charger specially designed for compatibility with the electronics of your motorcycle. Using this charger, you can keep the battery charged during long periods when the motorcycle is not being used without having to disconnect the battery from the motorcycle's onboard systems. Additional information is available at your authorized BMW Motorrad retailer.◀

Charging connected battery

Charging the connected battery directly at the battery terminals can damage the motorcycle electronics.
To charge the battery via the battery terminals, disconnect the battery first.◀

If the multifunction display and indicator lamps fail to light up when you switch on the ignition, the battery is completely discharged (battery voltage below 9 V). Attempts to recharge a completely discharged battery through the onboard power socket can damage the motorcycle's electronic systems.
Always charge a completely drained battery directly at the terminals of the disconnected battery.◀

Charging the battery via the onboard socket is only possible with suitable chargers. Unsuitable chargers can result in damage to the motorcycle electronics.
Use suitable BMW chargers. The correct charger is available through your authorized BMW Motorrad retailer.◀

- Charge disconnected battery via onboard socket.

The motorcycle's onboard electronics know when the battery is fully charged. The onboard socket is switched off when this happens.◀

- Comply with operating instructions of charger.

If you are unable to charge the battery via the onboard socket, you may be using a charger that is not compatible with your motorcycle's electronics. In this case, charge the battery directly at the terminals of the disconnected battery.◀

Charging disconnected battery

- Charge battery using a suitable charger.
- Comply with operating instructions of charger.

- Once the battery is fully charged, disconnect the charger's terminal clips from the battery terminals.

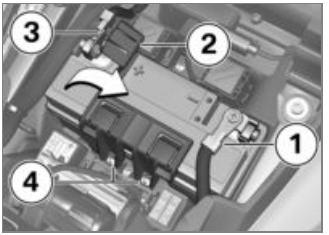
▷ In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.◀

Remove battery

- Remove rider's seat (➠ 58).

– with anti-theft alarm OE

- Switch off anti-theft alarm system if necessary.◁
- Switch off ignition.

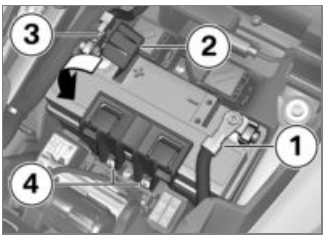


⚠ An incorrect disconnection sequence increase the risk of short-circuiting.
Always observe the proper sequence.◀

- Remove negative battery cable **1**.
- Open cover **2** and remove positive battery cable **3**.
- Remove screws **4** and remove the retainer.
- Lift battery upwards; if it is difficult to move, moving it back and forth will help.

Installing battery

- Place battery in battery compartment, positive terminal on right in direction of travel.



- Install the retainer and install screws **4**.

⚠ An incorrect installation sequence increases the risk of short-circuiting.
Always observe the proper sequence.◀

- First connect battery positive lead **3** and close cover **2**.
- Then install negative battery cable **1**.

- Installing driver's seat (➠ 58).
- Switch on ignition.
- Set the time in `Settings - Time` and set the date in `Settings - Date`.

Fuses

Replacing fuses

- Switch off ignition.
- Remove rider's seat (➠ 58).

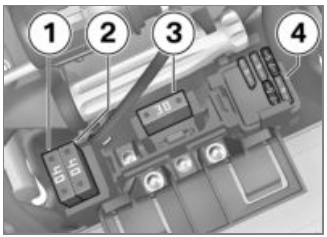
⚠ If defective fuses are bridged, this results in a danger of short-circuit and thus a danger of fire.
Replace defective fuses with new fuses.◀

- Consult the fuse assignment diagram and replace the defective fuse.

▷ If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably a BMW Motorrad retailer.◀

- Installing driver's seat (➠ 58).

Fuse assignment



1 40 A
Motorcycle electronics
2 40 A
Motorcycle electronics
– with Electronic Suspension Adjustment (ESA) OE
ESA
3 30 A
Electronic engine management
4 Fuse box open with fuses assignment as follows:
-1 Not in use
-2 Not in use
-3 Not in use
-4 4 A
Left handlebar fitting
– with Tire Pressure Control (TPC/RDC) OE
Tire Pressure Monitor
– with topcase OA
Topcase light
-5 Not in use
– with preparation for US audio system and navigation device OE
7,5
Audio system
-6 4 A
Beam throw adjustment
– with adaptive headlight OE
Adaptive cornering lights
-7 4 A
Main relay, instrument panel, ignition switch

-8 Not in use
– with anti-theft alarm OE
or
– with central locking OE
7.5 A
Anti-theft alarm system
Central locking

Care

Care products 138
Washing your vehicle 138
Cleaning sensitive vehicle parts 138
Paint care 139
Storing motorcycle..... 140
Protective wax coating 140
Returning motorcycle to use 140

Care products

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW CareProducts have been materials tested, laboratory tested, and field tested and provide optimum care and protection for the materials used in your vehicle.

The use of unsuitable cleaning and care products can damage motorcycle components.

For cleaning, do not use any solvents such as nitro-thinners, cold cleaning agents, fuel or similar, and do not use cleaning agents that contain alcohol.◀

Washing your vehicle

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the vehicle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to bright sunlight and do not wash it in the sun.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the motorcycle with cold water immediately after completion of every trip.

After washing the motorcycle, after driving through water or in the rain, braking can be delayed owing to damp brake rotors and brake pads. Brake early until the brake disks and pads are dry.◀

Warm water intensifies the effect of salt.

Only use cold water to remove road salt.◀

The high water pressure of high-pressure cleaners (steam cleaners) can damage seals, the hydraulic brake system, the electrical system and the seat.

Do not use a steam jet or high-pressure cleaning equipment.◀

Cleaning sensitive vehicle parts

Plastics

If plastic parts are cleaned using unsuitable cleaning agents, the surfaces can be damaged.

Do not use cleaning agents that

contain alcohol, solvents or abrasives to clean plastic parts. 'Insect sponges' or sponges with hard surfaces can also lead to scratches.◀

Fairings and Panels

Clean body panels with water and BMW plastic cleaner.

Windshields and lenses are manufactured of plastic

Clean off dirt and insects with a soft sponge and plenty of water.

Soften stubborn dirt and dead insects by covering the affected areas with a wet cloth.◀

Chrome

Especially in the case of road salt, carefully clean chrome parts with plenty of water and BMW auto shampoo. Use chrome polish for additional treatment.

Radiator

Clean the radiator regularly to prevent overheating of the engine due to inadequate cooling. For example, use a garden hose with low water pressure.

Cooling fins can be bent easily.

When cleaning the radiator, ensure that the fins are not bent.◀

Rubber

Treat rubber components with water or BMW rubber protection coating agent.

Using silicone sprays for the care of rubber seals can cause damage.

Do not use silicone sprays or care products that contain silicone.◀

Paint care

Washing the vehicle regularly will help counteract the long-term effects of substances that damage the paint, especially if your vehicle is ridden in areas with high air pollution or natural sources of dirt, e.g. tree resin or pollen. However, remove particularly aggressive materials immediately; otherwise changes in the paint or discoloration can occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. BMW Car Polish and BMW Paint Cleaner are recommended for this procedure. Contamination on the paint finish is particularly easy to see after the vehicle has been washed. Remove this type of soiling with cleaning naphtha or spirit on a clean cloth or cotton ball. BMW Motorrad recommends removing tar spots with BMW Tar Remover. Then add a protective

wax coating to the paint at these locations.

Storing motorcycle

- Clean the motorcycle.
- Remove battery (➠ 134).
- Spray brake and clutch lever, and main and side stand pivots with a suitable lubricant.
- Coat bare metal and chrome-plated parts with an acid-free grease (e.g., Vaseline).
- Park motorcycle in a dry room, raising it to remove weight from both wheels.

Protective wax coating

To preserve the finish of your vehicle, BMW Motorrad recommends using BMW Car Wax or agents that contain carnauba or synthetic waxes.
When water fails to form beads on the paint surface this indicates it is time to apply wax.

Returning motorcycle to use

- Remove the protective wax coating.
- Clean the motorcycle.
- Install a charged battery.
- Observe checklist before starting.

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Troubleshooting chart

Engine does not start at all or is very difficult to start.

Possible cause	Remedy
Side stand is extended	Retract side stand.
Gear engaged and clutch not disengaged	Place transmission in neutral or disengage clutch.
No fuel in tank	Refueling procedure (➠ 85).
Battery drained	Charge battery.

Threaded fasteners

Front wheel	Value	Valid
Front brake caliper on wheel carrier		
M8 x 30 - 10.9	22 lb/ft (30 Nm)	
Clamping screw for quick-release axle to wheel carrier		
M8 x 30	14 lb/ft (19 Nm)	
Quick-release axle in threaded bush (wheel carrier)		
M24 x 1.5	37 lb/ft (50 Nm)	

Rear wheel	Value	Valid
Tighten rear wheel on wheel flange		
M10 x 1.25 x 40	**diagonally**	
	44 lb/ft (60 Nm)	

Engine

Engine design	Transverse straight-six four-stroke engine with four valves per cylinder and two overhead camshafts; liquid cooling, electronic fuel injection, integral six-speed cassette gearbox, dry-sump lubrication.
Displacement	1649 cc (1649 cm^3)
Cylinder bore	2.8 in (72 mm)
Piston stroke	2.7 in (67.5 mm)
Compression ratio	12,2:1
Rated output	160 hp (118 kW), at engine speed: 7750 min^{-1}
– with power reduction OE	107 hp (79 kW), at engine speed: 7750 min^{-1}
Torque	129 lb/ft (175 Nm), at engine speed: 5250 min^{-1}
– with power reduction OE	111 lb/ft (150 Nm), at engine speed: 4750 min^{-1}
Maximum engine speed	max 8500 min^{-1}
Idle speed	$900^{\pm 50}$ min^{-1}, Engine at operating temperature

Fuel

Recommended fuel quality	Super unleaded, (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 7 gal (Approx. 26.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)

BMW recommends the use of BP fuel

Engine oil

Engine oil, capacity	1.2 gal (4.5 l), with filter change
Products recommended by BMW Motorrad	
Castrol Power 1 Racing	SAE 5W-40, API SL / JASO MA2

BMW recommends Castrol

Clutch

Clutch design	Multi-disk oil-bath clutch

Transmission

Transmission design	Claw-shifted 6-speed transmission integrated in engine housing
Transmission gear ratios	1.617, Primary gear ratio 1.941 (33:17 teeth), 1st gear 1.428 (30:21 teeth), 2nd gear 1.148 (31:27 teeth), 3rd gear 0.958 (23:24 teeth), 4th gear 0.806 (25:31 teeth), 5th gear 0.686 (24:35 teeth), 6th gear 0.913 (21:23 teeth), Angle drive 1.258 (39:31 teeth), Countershaft

Rear-wheel drive

Type of final drive	Shaft drive with bevel gears
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Number of teeth in bevel gears (gear ratio)	2.75 (33:12)

Suspension

Front wheel	
Type of front suspension	BMW Motorrad Duolever
Design of the front-wheel suspension	Central suspension strut
– with Electronic Suspension Adjustment (ESA) OE	Central suspension strut with electrically adjustable damping.
Spring travel, front	4.9 in (125 mm), On wheel

Rear wheel	
Type of rear suspension	Cast-aluminum single swing arm with BMW Motorrad paralever
Type of rear suspension	Central suspension strut pivoted to lever system. Spring preload and rebound-stage damping steplessly adjustable.
– with Electronic Suspension Adjustment (ESA) OE	Central suspension strut pivoted to lever system. Electrically adjustable damping and spring preload/ spring rate.
Spring travel, rear	5.3 in (135 mm), On wheel

Brakes

Type of front brake	Hydraulically operated twin disk brake with 4-piston fixed calipers and floating brake disks
Brake-pad material, front	Sintered metal
Type of rear brake	Hydraulic disk brake with 2-piston floating caliper and fixed brake disk
Brake-pad material, rear	Organic

Wheels and tires

Recommended tire combinations	You can obtain an overview of the current tire approvals from your authorized BMW Motorrad retailer or on the Internet at www.bmw-motorrad.com
Front wheel	
Front wheel design	Cast aluminum, MT H2
Front-wheel rim size	3.50" x 17"
Front tire designation	120 / 70 ZR 17
permissible front-wheel imbalance	max 0.2 oz (max 5 g)
Rear wheel	
Rear wheel design	Cast aluminum, MT H2
Rear-wheel rim size	6.00" x 17"
Rear tire designation	190 / 55 ZR 17
permissible rear-wheel imbalance	max 1.6 oz (max 45 g)
Tire inflation pressure	
Tire pressure, front	42.1 psi (2.9 bar), With tire cold
Tire pressure, rear	42.1 psi (2.9 bar), With tire cold

Electrical system

Electrical rating of onboard sockets	max 10 A, all onboard sockets together
Battery	
Battery design	Gel battery
Battery voltage	12 V
Battery capacity	19 Ah
Spark plugs	
Spark plugs, manufacturer and designation	NGK LMAR8AI-8
Electrode gap of spark plug	0.03 in (0.8 mm), New 0.04 in (1.0 mm), Wear limit
Bulbs	
Bulb for high-beam headlight	H7 / 12 V / 55 W
Bulbs for low-beam headlight	D1S / 35 W
Bulb for parking light	Lighting rings, integrated into headlight
Bulb for taillight/brake light	LED
Bulbs for flashing turn indicators, front	LED
Bulbs for flashing turn indicators, rear	LED

Fuses	
Fuse carrier 1	30 A, Engine electronics
Fuse carrier 2	40 A, Slot left: Vehicle electronics 40 A, Slot right: Vehicle electronics, ESA
Fuse box	not in use, Slot 1 not in use, Slot 2 not in use, Slot 3 4 A, Slot 4: Left handlebar fitting, tire pressure monitoring (RDC), topcase interior light 7.5 A, Slot 5: Audio system 4 A, Slot 6: Beam throw control, Adaptive Headlight 4 A, Slot 7: Main relay, instrument cluster, ignition switch 7.5 A, Slot 8: Anti-theft alarm (DWA), central locking

Anti-theft alarm system

– with anti-theft alarm OE

Anti-theft alarm	
Activation time during commissioning	30 s
Alarm duration	26 s
Activation time between two alarms	10 s
Battery type	CR 123 A
Remote control	
Range of remote control	32.8 ft (10 m)
Signal frequency	25 kHz, Broadband
Transmission frequency	433.92 MHz
Battery design and nominal voltage	CR 1632 lithium 3 V

Frame

Frame design	Cast light alloy - welded design with screwed-on light alloy rear frame
Location of type plate	Wheel carrier, front right
Location of the vehicle identification number	Frame side section, front right (beside engine-oil filler neck)

Dimensions

Motorcycle length	92.1 in (2340 mm), above luggage rack
– with topcase[OA]	96.7 in (2456 mm), over topcase
Motorcycle height	56.7 in (1440 mm), Across windshield at DIN unladen weight
Motorcycle width	39.4 in (1000 mm), Across mirrors 38.6 in (980 mm), without mirrors
Driver's seat height	31.9...32.7 in (810...830 mm), Without driver
– with low driver's seat[OE]	30.7...31.5 in (780...800 mm), Without driver
Rider's inside-leg arc, heel to heel	72...73.6 in (1830...1870 mm), Without driver
– with low driver's seat[OE]	69.9...71.3 in (1775...1810 mm), Without driver

Weights

Unladen weight	732 lbs (332 kg), DIN unladen weight, with cases, ready for road, 90 % load of fuel, without OE
Permissible gross weight	1190 lbs (540 kg)
Maximum payload	459 lbs (208 kg)

Performance data

Top speed	>124 mph (>200 km/h)

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Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying BMW of North America, LLC.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your retailer, or BMW of North America, LLC.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to http://www.safercar.gov; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from http://www.safercar.gov.

BMW Motorrad Service

With its worldwide service network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. BMW Motorrad retailers have the technical information and expertise needed to conduct reliable service and repairs covering every aspect of your BMW. You can find the nearest authorized BMW Motorrad retailer by visiting our Internet site at "www.bmw-motorrad.com".

If this maintenance and repair work is performed inexpertly, there is a danger of damage and associated safety risks. BMW Motorrad recommends having corresponding work on your motorcycle carried out by a specialized workshop, preferably by an authorized BMW Motorrad retailer.◀

To ensure that your BMW consistently remains in optimal condition BMW Motorrad urges you to observe the recommended service intervals.
Have all maintenance and repair work confirmed in the "Service" chapter in this manual. For generous treatment of claims submitted after the warranty period has expired (goodwill), evidence of regular maintenance is essential.

You can obtain information on the contents of the BMW Services from your BMW Motorrad retailer.

BMW Motorrad Mobility Services

The BMW Motorrad Mobility Services furnish you and your new BMW motorcycle with extra security by offering a wide array of assistance services in the event of a breakdown (BMW Roadside Assistance, breakdown assistance, vehicle recovery and retrieval, etc.).
Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

Maintenance procedures

BMW Pre-Delivery Check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns over the vehicle to you.

BMW Running-in Check

The BMW running-in check must be carried out between 300 mls (500 km) and 750 mls (1200 km).

BMW Service

BMW Service is carried out once a year. The scope of the services performed may be dependent on the vehicle owner and the mileage driven. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service.
For riders who drive long distances annually, it may be necessary to come in for service before the entered date. In this case a corresponding maximum odometer reading will also be entered in the confirmation of service. If this odometer reading is reached before the next service date, service must be performed sooner.

The service display in the multifunction display reminds you of the next service date approx. one month or 621 miles (1000 km) before the entered values.

Confirmation of maintenance work

BMW Pre-Delivery Check

Conducted

on_____

Stamp, Signature

BMW Running-in Check

Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

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Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

BMW Service
Conducted

on_____

Odometer reading_____

Next service
at the latest

on_____
or, if reached sooner,

Odometer reading_____

Stamp, Signature

Confirmation of service

The table is intended as proof of maintenance and repair work, the installed optional accessories and any special campaign (recall) work carried out.

Work carried out	Odometer reading	Date

Work carried out	Odometer reading	Date

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Certifications

Remote Control for central locking system

Česky
Meta System S.p.A. tímto prohlašuje, že tento PF240009 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Dansk
Undertegnede Meta System S.p.A. erklærer herved, at følgende udstyr PF240009 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch
Hiermit erklärt Meta System S.p.A., dass sich das Gerät PF240009 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Eesti
Käesolevaga kinnitab Meta System S.p.A. seadme PF240009 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

English
Hereby, Meta System S.p.A., declares that this PF240009 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Español
Por medio de la presente Meta System S.p.A. declara que el PF240009 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Certifications

Ελληνική
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Meta System S.p.A. ΔΗΛΩΝΕΙ ΟΤΙ PF240009 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Français
Par la présente Meta System S.p.A. déclare que l'appareil PF240009 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano
Con la presente Meta System S.p.A. dichiara che questo PF240009 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Latviski
Ar šo Meta System S.p.A. deklarē, ka PF240009 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lietuvių
Šiuo Meta System S.p.A. deklaruoja, kad šis PF240009 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Nederlands
Hierbij verklaart Meta System S.p.A. dat het toestel PF240009 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Malti
Hawnhekk, Meta System S.p.A., jiddikjara li dan PF240009 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Magyar
Alulírott, Meta System S.p.A. nyilatkozom, hogy a PF240009 megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.

Polski
Niniejszym Meta System S.p.A. oświadcza, że PF240009 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

Português
Meta System S.p.A. declara que este PF240009 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Certifications

Slovensko
Meta System S.p.A. izjavlja, da je ta PF240009 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky
Meta System S.p.A. týmto vyhlasuje, že PF240009 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

Suomi
Meta System S.p.A. vakuuttaa täten että PF240009 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Svenska
Härmed intygar Meta System S.p.A. att denna PF240009 står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Íslenska
Hér með lýsir Meta System S.p.A. yfir því að PF240009 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.

Norsk
Meta System S.p.A. erklærer herved at utstyret PF240009 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

USA, Canada

Product name: TX BMW MR
FCC ID: P3O98400
IC:4429A - TXBMWMR

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Declaration Of Conformity

R&TTE Declaration Of Conformity (DoC)

CE 0470

We: **Meta System S.p.A.**

with the address: Via Majakovskij 10 b/c/d/e
42124 Reggio Emilia –Italy

Declare

Under own responsibility that the product:

TX BMW MR

To which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC).
This product is in conformity with the following standards:

Health & Safety (art.3.1)	EN 60950-1
EMC (art.3.2)	ETSI EN 301 489-1/-3
Spectrum	ETSI EN 300 220 - 2
Human exposure	EN 62311

According to Directive 1999/5/CE

Reggio Emilia , 14/07/2010

Technical Director
Lasagni Cesare

Certification Tire Pressure Control (TPC)

FCC ID: MRXBC54MA4 IC: 2546A-BC54MA4	FCC ID: MRXBC5A4 IC: 2546A-BC5A4

This device complies with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

WARNING: Changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. The term “IC:” before the radio certification number only signifies that Industry Canada technical specifications were met.

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The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims stemming from these differences can be recognized.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.
The right to modify designs, equipment and accessories is reserved.
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The most important data for a filling station stop can be found in the following chart:

Fuel	
Recommended fuel quality	Super unleaded, (max. 10 % ethanol, E10) 89 AKI (95 ROZ/RON) 89 AKI
Usable fuel quantity	Approx. 7 gal (Approx. 26.5 l)
Reserve fuel quantity	Approx. 1.1 gal (Approx. 4 l)
Tire inflation pressure	
Tire pressure, front	42.1 psi (2.9 bar), with tire cold
Tire pressure, rear	42.1 psi (2.9 bar), with tire cold

BMW recommends Castrol

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